Freeman Gulch Four-Lane Project

On State Route 14 from 0.8 mile north of Redrock Inyokern Road to
2.2 miles south of the junction with U.S. Highway 395
06-KER-14-PM 45.9/62.3
06-457100
SCH Number: 2006121082

Initial Study with Mitigated Negative Declaration/ Environmental Assessment with Finding of No Significant Impact

Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the Department under its assumption of responsibility pursuant to 23 U.S. Code 327.

September 2007

Caltrans®

General Information About This Document

What's in this document?

This document contains a Mitigated Negative Declaration and Finding of No Significant Impact, which examine the environmental effects of a proposed project on State Route 14 in Kern County.

The Initial Study/Environmental Assessment and proposed Mitigated Negative Declaration were circulated to the public from December 27, 2006 to January 25, 2007. Responses to comments on the circulated document are shown in the Comments and Responses section of this document (see Appendix M). Throughout this document, a line in the margin indicates changes from the draft document.

Since circulation of the Initial Study//Environmental Assessment and proposed Mitigated Negative Declaration, the Federal Highway Administration has assigned certain responsibilities to the California Department of Transportation (Caltrans). The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

What happens after this?

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, the California Department of Transportation, as assigned by the Federal Highway Administration, can design and construct all or part of the project.

It should be noted that at a future date, the Federal Highway Administration or another federal agency may publish a notice in the Federal Register, pursuant to 23 U. S. Code Section 139(l), indicating that a final action has been taken on this project by the Federal Highway Administration or another federal agency. If such notice is published, a lawsuit or other legal claim will be barred unless it is filed within 180 days after the date of publication of the notice (or within such shorter time period as is specified in the federal laws pursuant to which judicial review of the federal agency action is allowed). If no notice is published, then the lawsuit or claim can be filed as long as the periods of time provided by other federal laws that govern claims are met.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Sarah Gassner, Southern Sierra Environmental Analysis Branch, 2015 E. Shields Avenue, Suite 100, Fresno, CA 93726; (559) 243-8243 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

SCH# 2006121082
06-KER-14-PM 45.9/62.3
06-457100

Widening State Route 14 from two lanes to four lanes, from 0.8 mile north of Redrock Inyokern Road to 2.2 miles south of the junction with U.S. Highway 395 in Kern County, California

INITIAL STUDY
with Mitigated Negative Declaration
/ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327

THE STATE OF CALIFORNIA
Department of Transportation

9/24/07
Date of Approval

for Carrie L. Bowen
Chief
Central Region Environmental Division
California Department of Transportation

California Department of Transportation
Finding of No Significant Impact

FOR

State Route 14

Freeman Gulch Four-Lane Project

from 0.8 mile north of Redrock Inyokern Road to 2.2 miles south of the junction with U.S. Highway 395 (post miles 45.9/62.3)
in Kern County, California

The California Department of Transportation (Caltrans) has determined that Alternative 1 will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment, which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment and incorporated technical reports.

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

Oct. 3, 2007
Date

Malcolm X. Dougherty
District Director
California Department of Transportation

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to convert the existing two-lane conventional highway into a four-lane, divided, controlled-access expressway on State Route 14 in Kern County from 0.8 mile north of Redrock Inyokern Road to 2.2 miles south of the junction with U.S. Highway 395. Improvements on the existing roadway include placing an asphalt concrete overlay, flattening cut slopes, widening fill slopes, and widening paved shoulders. Roadway improvements also include a 100-foot median, where possible, along with 5-foot inside and 10-foot outside paved shoulders. This project would also require constructing a new Freeman Gulch Bridge (#50-14R), widening or replacing the existing Freeman Gulch Bridge (#50-14, which would become #50-14L), and upgrading intersections.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the project would not have a significant effect on the environment for the following reasons:

- The proposed project would not encroach upon the floodplain. The proposed project would not increase seismic hazards. There would be no effects on recreational or educational facilities or on any park. There would be no effects on air quality, water quality, sensitive noise receptors, or farmland. There would be no effects on wetlands or riparian vegetation. The character and composition of traffic would not be affected. The project would not affect planned land use or induce unplanned growth.
- There would be a less than significant effect on hydrology and soils.

In addition, the project would have no significantly adverse effects on cultural resources, threatened and endangered species, paleontological resources, businesses and housing, visual/aesthetics, and utilities because the following mitigation measures would reduce potential effects to insignificance:

- Impacts to cultural resources would be mitigated under the provisions of the Caltrans, Federal Highway Administration, and State Historic Preservation Officer Programmatic Agreement.
- Impacts to threatened or endangered species would be mitigated in accordance with the Biological Opinion rendered by the U.S. Fish and Wildlife Service and with the Section 2081 Incidental Take Permit issued by the California Department of Fish and Game.
- The Paleontological Contractor selected by Caltrans would implement the mitigation measures described in the Initial Study.
- Residents and businesses displaced by the project would receive assistance through the Relocation Assistance Program.
- Implementation of mitigation measures for visual/aesthetics would reduce the visual impacts of the project so that they would not result in substantial changes to the overall visual quality.
- Utilities affected by the project would be relocated in coordination with utility companies.

Christine Cox-Kovacevich, Office Chief
Office of Environmental Management, North
Central Region Environmental Division
California Department of Transportation

10-1-04
Date

Summary

On State Route 14 near Ridgecrest in Kern County, California, the California Department of Transportation (Caltrans) proposes to convert the existing two-lane conventional highway into a four-lane, divided, controlled-access expressway from post miles 45.9 to 62.3. The purpose and need of this project are to improve the safety of State Route 14 and to provide four-lane route continuity along the entire length of the highway. This project is included in the Fiscal Year 2008/2009 State Transportation Improvement Program.

Four alternatives are being considered for the Freeman Gulch Four-Lane project: three build alternatives and a no-build alternative. Total project costs including support costs range from zero dollars for the no-build alternative to $91,628,000 for Alternative 2.

The three build alternatives (Alternatives 1, 2, and 3) propose to convert the existing two-lane conventional highway into a four-lane, divided, controlled-access expressway with four 12-foot lanes. At the south end of the project, all three alternatives would begin with the new lanes being constructed to the west of the existing lanes to provide a straight connection to the two existing southbound lanes at post mile 45.9. The new alignment must shift somewhere within the project limits to allow the new lanes to match up with the configuration of the existing four-lane expressway at the north end of the project. The location of the shift in the new alignment is the main difference between Alternatives 1, 2, and 3.

Alternative 1 would construct the new lanes west of the existing highway. This alternative proposes that the shift of the new alignment from the west side to the east side be made just north of the Freeman Gulch wash crossing that is located at post mile 56.4.

Alternative 2 would construct the new lanes east of the existing highway. The shift from the west side to the east side would be made near the south end of the project limits.

Alternative 3 would also construct the new lanes to the west of the existing highway alignment. However, this alternative proposes that the shift from the west side to the east side be made near the north end of the project limits.

Alternatives 1, 2, and 3 also propose the following improvements to the existing roadway:

- Placing an asphalt concrete overlay on the existing asphalt concrete pavement.
- Flattening cut slopes, widening fill slopes, and widening paved shoulders.
- Constructing a 100-foot median, where possible, along with 5-foot inside and 10-foot outside paved shoulders.
- Constructing a new Freeman Gulch Bridge (#50-14R) and widening or replacing the existing Freeman Gulch Bridge (#50-14, which would become #50-14L).
- Upgrading several drainage crossings to reinforced concrete boxes.
- Upgrading the intersections with State Route 178 East and State Route 178 West to meet current design standards.
- Constructing frontage roads or providing access openings to private lands from the proposed four-lane expressway.

The No-Build Alternative would keep the highway as it is. It would not reduce the number of accidents or provide four-lane route continuity throughout the entire length of State Route 14. The No-Build Alternative does not meet the purpose and need for this project.

Based on the environmental impacts and consideration of public comments, Alternative 1 has been selected as the Preferred Alternative.

Table S.1, Summary of Major Potential Impacts from Alternatives, compares potential impacts among Alternative 1, Alternative 2, Alternative 3 and the No-Build Alternative.

S.1 Summary of Major Potential Impacts from Alternatives

Potential Impact		Alternative 1	Alternative 2	Alternative 3	No-Build Alternative
Relocation	**Business displacements**	4	4	4	None
	Housing displacements	12	8	12	None
	Utility service relocation	Utilities would require relocation.	Utilities would require relocation.	Utilities would require relocation.	None
Visual/Aesthetics		Disturbance and removal of native vegetation would occur during construction.	Disturbance and removal of native vegetation would occur during construction.	Disturbance and removal of native vegetation would occur during construction.	None
Cultural Resources		Two cultural sites are located near the Area of Direct Impact, but would not be adversely affected.	Portions of two cultural sites would be adversely affected.	Two cultural sites are located near the Area of Direct Impact, but would not be adversely affected.	None
Paleontology		Excavation, especially near the beginning of the project limits, may affect paleontological resources.	Excavation, especially near the beginning of the project limits, may affect paleontological resources.	Excavation, especially near the beginning of the project limits, may affect paleontological resources.	None
Threatened and Endangered Species		Impacts to 413.41 acres of desert tortoise and Mohave ground squirrel habitat.	Impacts to 422.04 acres of desert tortoise and Mohave ground squirrel habitat.	Impacts to 415.83 acres of desert tortoise and Mohave ground squirrel habitat.	None

Table of Contents

List of Figures

List of Tables

List of Abbreviated Terms

Caltrans	California Department of Transportation
APN	Assessor Parcel Number
BSA	biological study area
CEQA	California Environmental Quality Act
ESA	Environmentally Sensitive Area
FHWA	Federal Highway Administration
NEPA	National Environmental Policy Act
PM	post mile

Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to convert the existing two-lane conventional highway into a four-lane divided controlled access expressway on State Route 14 in Kern County from 0.8 mile north of Redrock Inyokern Road to 2.2 miles south of the junction with U.S. Highway 395. The total length of the project is 16.4 miles. Figures 1-1 and 1-2 show maps of the project area.

The existing roadway within the proposed project limits is a two-lane conventional highway with 4-foot outside shoulders and no median. The outside shoulders and the intersections do not meet current design standards. The roadway pavement is cracked, and the existing slopes on the sides of the roadway are too steep. The proposed improvements include placing an asphalt concrete overlay, correcting slopes, widening paved shoulders, upgrading several drainage crossings to reinforced concrete boxes, constructing a median, and upgrading several intersections.

The Freeman Gulch Four-Lane project was identified in the 2004 Caltrans District 9 Transportation Concept Report for State Route 14 and is included in the Fiscal Year 2008/2009 State Transportation Improvement Program. It is also included in the 2006 Kern County Regional Transportation Improvement Program that was approved by the California Transportation Commission on April 27, 2006. The Freeman Gulch Four-Lane project is included in the 2006 Federal Transportation Improvement Program, which was regionally adopted on July 20, 2006. The 2006 Federal Transportation Improvement Program is included in the 2007 Federal Statewide Transportation Improvement Program that was approved by the Federal Highway Administration and the Federal Transit Administration on October 2, 2006.

Caltrans initiated this project in response to a request by Kern County in an effort to achieve long-term transportation system and operational goals. This project would upgrade 16.4 miles of existing two-lane conventional highway to a four-lane expressway to improve route continuity. Following the completion of this project, State Route 14 would be a continuous four-lane road along its entire length from its beginning at Interstate 5 in Los Angeles County to its end at the junction with U.S. Highway 395 in northeast Kern County.

The project name, Freeman Gulch Four-Lane, refers to the Freeman Gulch Wash, a major drainage channel that crosses the road at post mile 56.4. The existing bridge over this channel is a 35-foot-wide, 90-foot-long two-span closed abutment structure with an 18-foot clearance from the channel surface to the bottom of the bridge. This structure (bridge #50-14, which would become #50-14L) would be widened 8 feet to conform to current two-lane standards, or be replaced entirely. Downstream (to the east of the bridge), the channel makes a sharp turn and parallels the right side of the highway for approximately 705 feet. In addition to widening or replacing the existing two lanes of the Freeman Gulch Bridge, the project would build a new Freeman Gulch Bridge (#50-14R) that would also conform to current two-lane standards. The two bridges together (northbound and southbound) would make a four-lane road (route continuity) through that segment.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the project is twofold:

- Improve the safety of State Route 14.
- Provide four-lane route continuity along the entire length of State Route 14.

Improvements to State Route 14 would address safety issues with the widening of outside shoulders and median and the upgrading of intersections. The project would also provide a continuous four-lane roadway along the entire length of State Route 14 from Los Angeles County through Kern County.

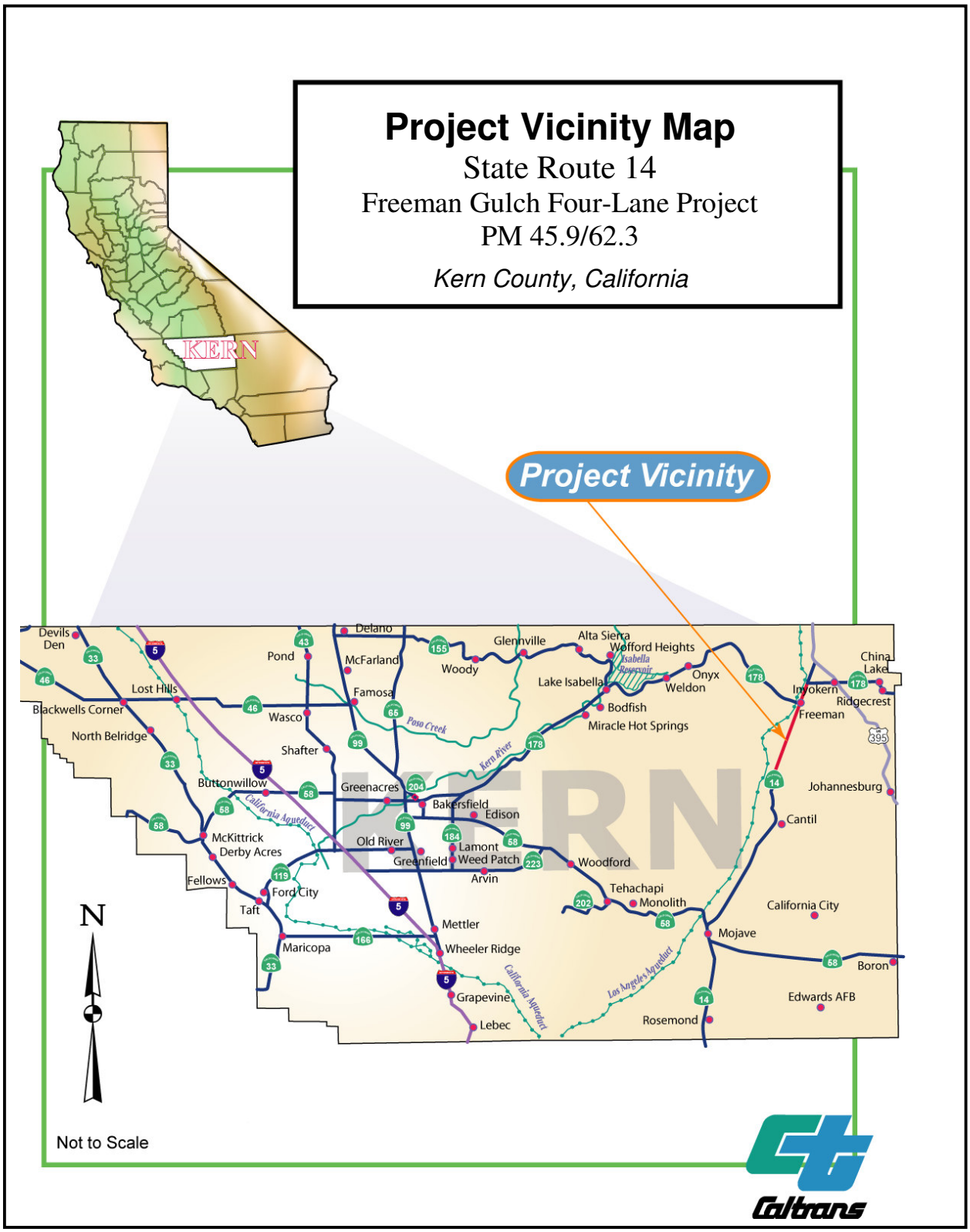


Figure 1-1 Project Vicinity Map

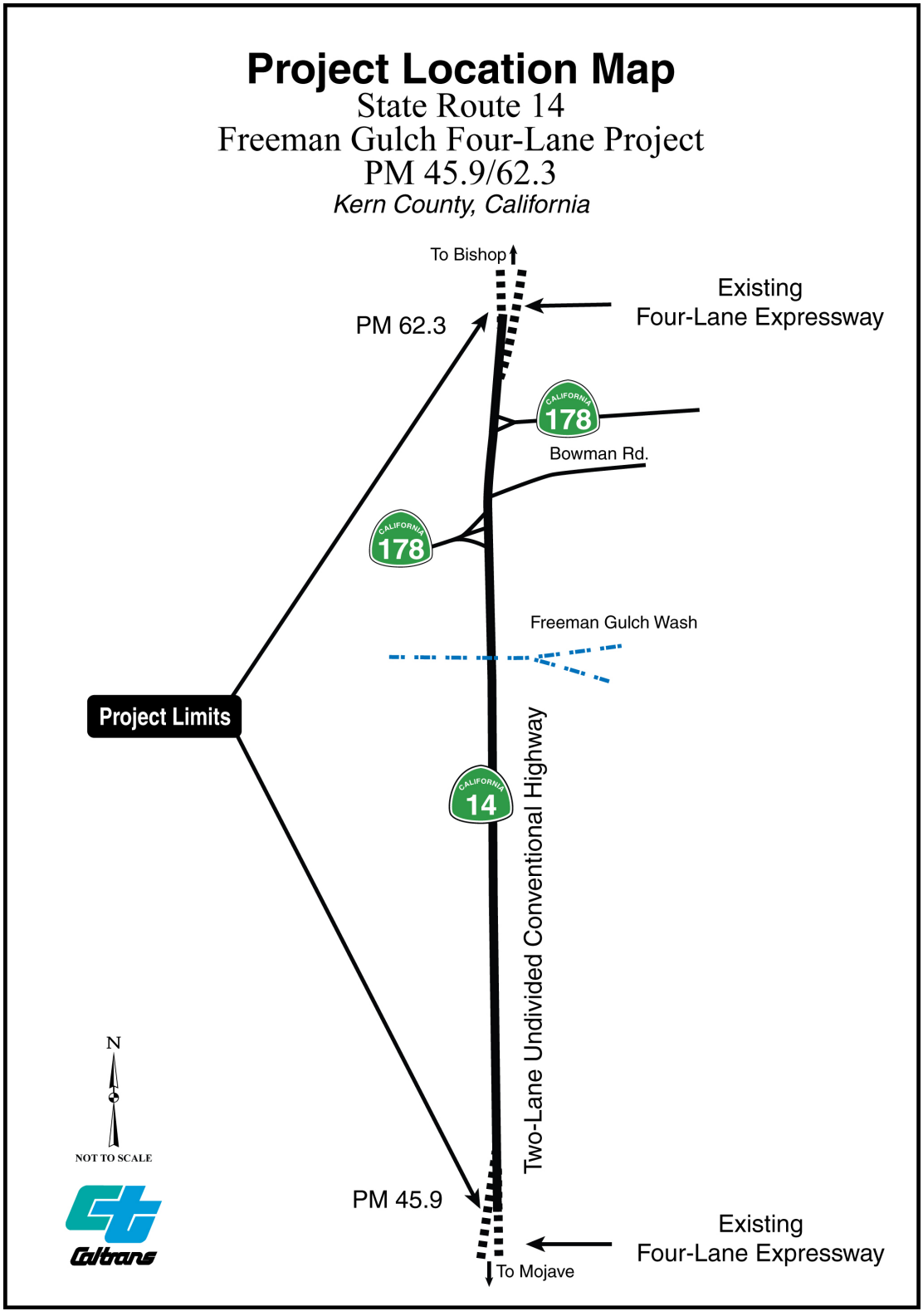


Figure 1-2 Project Location Map

1.2.2 Need

1.2.2.1 Safety

Because of the rural nature of the region, drivers of passenger cars tend to travel at a high rate of speed along the route. But trucks and recreational vehicles cannot always keep up with those drivers, so traffic starts to "queue" (line up) behind the larger, slower-moving vehicles traveling in the same direction in the same lane. The faster cars want to pass, and this may result in the attempt of unsafe passing maneuvers. Upgrading the existing two-lane conventional highway to a four-lane expressway would help alleviate the problems associated with traffic queuing.

Table 1.1 shows the accident data on State Route 14. The table reflects the accident rates and actual numbers of accidents that occurred within the entire stretch of the project limits, as well as solely at the following two intersections: State Route 14 and State Route 178 West located at post mile 57.7 and State Route 14 and State Route 178 East located at post mile 60.5.

Table 1.1 Accident Rates

October 1, 2002 – September 30, 2005

(Expressed in million vehicle miles traveled)

State Route 14	**Actual**			**Statewide Average**		
Between post miles 45.9 and 62.3	**Fatal**	**Fatal + Injury**	**Total***	**Fatal**	**Fatal + Injury**	**Total***
Accident Rates	0.066	0.34	0.59	0.031	0.35	0.72
Accidents	6	31	53	-	-	-
Intersection of State Route 14/State Route 178 west at post mile 57.7	**Fatal**	**Fatal + Injury**	**Total***	**Fatal**	**Fatal + Injury**	**Total***
Accident Rates	0.0	0.14	0.41	0.004	0.1	0.22
Accidents	0	1	3	-	-	-
Intersection of State Route 14/State Route 178 east at post mile 60.5	**Fatal**	**Fatal + Injury**	**Total***	**Fatal**	**Fatal + Injury**	**Total***
Accident Rates	0.168	0.34	0.84	0.004	0.1	0.22
Accidents	1	2	5	-	-	-

** Total includes "property damage only" accidents*

A total of 53 accidents were recorded on this portion of State Route 14 (between the project limits) for the most recent three-year period ending September 30, 2005. This resulted in a total accident rate of 0.59, which is below the statewide average of 0.72 for a similar roadway. However, there were six fatal accidents during this period; that equates to a fatal accident rate of 0.066, more than double the statewide average fatal accident rate for a similar roadway. The main causes of the accidents were the following: 62 percent, improper turning; 13 percent, other violation; 11 percent, speeding.

Of the 53 total accidents, 40 (75 percent) were caused by or resulted in a vehicle leaving the pavement. Of the 40 accidents involving a vehicle leaving the pavement, 23 vehicles struck an object off of the roadway and 17 vehicles overturned.

Alternatives 1, 2, and 3 would reduce the accident rates for this segment of State Route 14. Having two lanes in each direction of travel would allow faster-moving traffic to more easily pass slower-moving trucks and recreational vehicles. Installing wider paved shoulders and flattening embankment slopes would create an emergency recovery area for drivers and reduce rollover-type accidents. Wider shoulders would also allow disabled vehicles to move completely off the road.

In addition, the existing median width does not meet current design standards. Alternatives 1, 2, and 3 of the proposed project would widen the median to 100 feet to further separate opposing lanes of traffic.

State Route 178 West meets State Route 14 at post mile 57.7. Three accidents were reported at this intersection during the three-year period ending September 30, 2005. Of those three accidents, two involved vehicle collisions due to failure to yield, and one involved a vehicle striking an object off the roadway due to speeding. This resulted in an accident rate of 0.41, which is above the statewide average of 0.22 for a similar intersection.

State Route 178 East branches off from State Route 14 at post mile 60.5. At this intersection, five accidents occurred during the three-year reporting period: three involved collisions between vehicles due to failure to yield or speeding, and two involved a vehicle hitting an object off the roadway due to speeding. This resulted in a fatal accident rate (0.168) and a fatal+injury accident rate (0.34) that were above the statewide averages for a similar intersection. The total accident rate was 0.84, almost four times the statewide average of 0.22 for a similar intersection.

These intersections do not meet current design standards. All three build alternatives would upgrade these intersections by realigning the skewed angles at which these roads currently meet State Route 14. Improving the existing angles to 90 degrees would enable drivers to maker safer turns onto State Route 14. Appendix J shows the existing configurations of the intersections and the proposed improvements.

The project would ease peak traffic congestion and queuing, remove passing restrictions, further separate northbound and southbound traffic, and provide emergency parking areas on the side of the road. Widening the roadway to four lanes, adding a median, and widening the shoulders would provide added room for emergency maneuvering and errant driver recovery.

1.2.2.2 Continuity

The stretch of highway within the project limits is one of only two segments of State Route 14 that have not been widened to four lanes. The other segment, known as the North Mojave Four-Lane project, is already under construction. If the Freeman Gulch Four-Lane project were completed, State Route 14 would be a continuous four-lane road along its entire length from Interstate 5 in Los Angeles County to U.S. Highway 395 in Kern County.

1.3 Alternatives

This section describes the proposed action and design alternatives that were developed by a multi-disciplinary team to achieve the project purpose and need while avoiding or minimizing environmental impacts. The alternatives consist of the three build alternatives (Alternatives 1, 2, and 3) and the No-Build Alternative. Figure 1-3 shows the proposed alignments of the three build alternatives. Appendix I shows the typical cross-sections for these alternatives. Appendix J shows the existing configurations of the intersections and the proposed improvements.

1.3.1 Build Alternatives

Final selection of an alternative would not be made until after the full evaluation of environmental impacts, consideration of public hearing comments, and approval of the final environmental document.

Common Design Features of the Build Alternatives

Each of the three build alternatives proposes to convert the existing two-lane conventional highway into a four-lane, divided, controlled-access expressway with

four 12-foot lanes, 5-foot inside and 10-foot outside paved shoulders, and a widened median. Other project tasks include overlaying the existing lanes with asphalt concrete, flattening embankment slopes, upgrading several drainage crossings from culverts to reinforced concrete boxes, constructing a new Freeman Gulch Bridge (#50-14R), widening or replacing the existing Freeman Gulch Bridge (#50-14, which would become #50-14L), and upgrading two intersections to meet current design standards.

Within the project limits are a few clusters of privately owned properties that adjoin or are near State Route 14. All build alternatives would provide either frontage roads or access openings to the private lands from the proposed four-lane expressway. The locations of the proposed frontage roads or access openings would be at the following post mile locations: 48.5, 50.7, 53.4, 58.9, and 61.2.

Alternatives 1, 2, and 3 would improve safety by separating northbound and southbound traffic with a center median and providing room for emergency parking and errant driver recovery with inside and outside shoulders and flatter slopes. In addition, with an additional through lane in each direction of travel, peak traffic congestion and queuing would be eased, and passing restrictions would be removed.

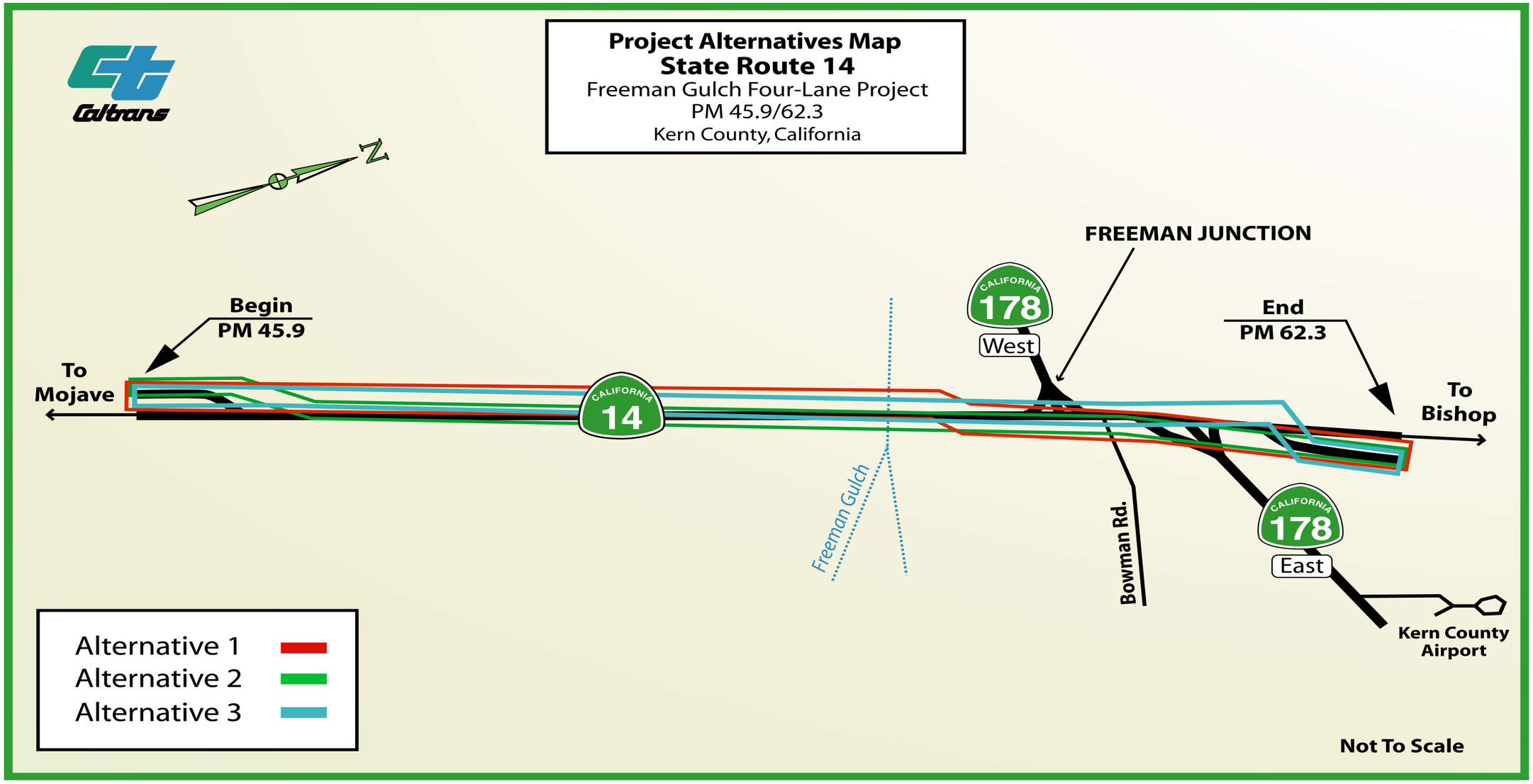


Figure 1-3 Project Alternatives Map

Unique Features of Build Alternatives

Alternative 1

Alternative 1 would construct a four-lane divided expressway. The new lanes would be constructed 100 feet west of the existing highway alignment. This is necessary since the existing four-lane portion of the highway that is being matched at the beginning of the project limits (southern end) was constructed to allow the new lanes of the Freeman Gulch Four-Lane project to be constructed to the west of the existing highway. The opposite condition occurs at the northern end of the project limits, requiring the alignment to be shifted somewhere within the limits of the project. This alternative proposes that the shift of the new alignment from the west side to the east side would be made just north of the Freeman Gulch Wash crossing at post mile 56.4. There would be a 100-foot-wide unpaved center median. See Appendix I for cross-section designs of this alternative.

The estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is $90,625,000.

Alternative 2

Alternative 2 is a variation of Alternative 1. This alternative would also construct a four-lane divided expressway and a 100-foot-wide unpaved center median. But, the new lanes would be constructed 100 feet east of the existing highway alignment. The shift from the west side to the east side would be made near the southern end of the project limits.

Under Alternative 2, the new lanes would swing farther east at Freeman Gulch Wash. Because the creek lies just east of the existing highway, to maintain a 100-foot-wide median, an extremely long bridge would have to be built to cross the creek at this location. To minimize the length of the bridge structure, the new alignment must shift approximately 400 feet east of the existing alignment so that the proposed bridge could cross the wash at a right angle. See Appendix I for cross-section designs of this alternative.

The estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is $91,628,000.

Alternative 3

Alternative 3 is a variation of Alternative 1. This alternative also proposes to construct a four-lane divided expressway. The new lanes would also be constructed 100 feet west of the existing highway alignment. But, this alternative proposes that

the shift from the west side to the east side would be made at the north end of the project. This is to ensure the new alignment would match up with the existing configuration of State Route 14 at the northern project limits. This alternative provides a westside crossing of the Freeman Gulch Wash. See Appendix I for cross-section designs of this alternative.

The estimated project cost for this alternative, including right-of-way acquisition and utilities relocation, is $90,631,000.

1.3.2 No-Build Alternative

Under the No-Build Alternative, this segment of State Route 14 would remain in its current condition. No improvements would be made to improve safety or provide route continuity. Without the proposed improvements, as traffic increases over time, accident rates and maintenance costs would increase.

1.3.3 Comparison of Alternatives

An analysis of the project alternatives indicated that all three build alternatives would satisfy the project safety and route continuity goals.

In regard to property relocations, Alternatives 1 and 3 would each result in 4 business and 12 residential displacements. Alternative 2 would result in 4 business and 8 residential displacements.

In regard to cultural resources, Alternatives 1 and 3 would not adversely affect the two cultural sites near the Area of Direct Impact. However, Alternative 2 would adversely affect portions of the two cultural sites.

After the public circulation period, all comments were considered, and Caltrans selected the preferred alternative and made the final determination of the project's effect on the environment. In accordance with the California Environmental Quality Act, no unmitigable significant adverse impacts were identified, and Caltrans prepared a Mitigated Negative Declaration. Similarly, Caltrans determined the action does not significantly impact the environment and Caltrans, as assigned by the Federal Highway Administration, issued a Finding of No Significant Impact in accordance with the National Environmental Policy Act.

Of the build alternatives, Alternative 1 could be constructed with less of an impact to biological habitat and would provide a preferred crossing of the Freeman Gulch

Wash. In addition, Alternative 1 costs the least and could be constructed without impacts to the State Route 178 West intersection.

1.3.4 Identification of a Preferred Alternative

Based on the benefits and impacts of all of the feasible alternatives and consideration of public comments, the project development team identified Alternative 1 as the Preferred Alternative.

Alternative 1 proposes that the shift of the new alignment from the west side to the east side would be made just north of the Freeman Gulch Wash crossing at post mile 56.4. This location for the alignment shift is preferred for two reasons. First, it allows for the shortest length of crossing structure, minimizes the structure costs, and maintains a uniform median width. Another advantage of this crossing location is that it allows construction/modification of the State 178 West, State Route 178 East, and Bowman Road intersections with only minor impacts to traffic. The estimated project cost for Alternative 1, including right-of-way acquisition and utilities relocation, is the least costly of all proposed build alternatives.

As a result of this widening project, habitat for the desert tortoise and Mohave ground squirrel would be permanently impacted. Of the proposed alternatives, Alternative 1 would have the least amount of acreage impact to this biological habitat.

The Preferred Alternative meets the purpose and need for the project. Alternative 1 satisfies the project safety goal by separating northbound and southbound traffic with a center median and providing room for emergency parking and errant driver recovery with inside and outside shoulders and flatter slopes. Alternative 1 also satisfies the project route continuity goal by allowing State Route 14 to become a continuous four-lane road along its entire length from Interstate 5 in Los Angeles County to U.S. Highway 395 in Kern County.

1.3.5 Alternatives Considered and Withdrawn

Only one alternative (Alternative 4) has been withdrawn since the initiation of this project. Alternative 4 proposed a four-lane, undivided highway with 10-foot outside shoulders. This alternative also proposed a 14-foot paved median, which would not have provided the level of safety that Alternatives 1, 2, and 3 would with their wider proposed medians. In addition, Alternative 4 would require a design exception for the construction of a median less than 61 feet wide. A median of such narrow width

would require a median barrier. When traffic conditions warrant the use of a median barrier, a second design exception would be required due to having a fixed object (barrier) within the clear recovery zone.

In the early project scoping phase, only two build alternatives and one no-build alternative were being considered. Those build alternatives were what are now known as Alternative 1 and the withdrawn Alternative 4. Since the project scoping phase, Alternatives 2 and 3 were added.

1.4 Permits and Approvals Needed

Table 1.2 lists the permits, reviews, and approvals that would be required for project construction:

Table 1.2 Summary of Permits, Reviews, and Approvals

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 Consultation for Threatened and Endangered Species	The Biological Opinion was received from the U.S. Fish and Wildlife Service on August 3, 2007.
California Department of Fish and Game	1602 Agreement for Streambed Alteration. Section 2081 permit for Threatened and Endangered Species	Application for 1602 agreement and Section 2081 permit anticipated before construction.
State Historic Preservation Officer	Section 106 concurrence with Caltrans' determination of cultural sites eligible for the National Register of Historic Places	On March 24, 2006, the State Historic Preservation Officer concurred with Caltrans' determination that 2 archaeological sites are eligible for the National Register of Historic Places.
State Historic Preservation Officer	Section 106 Finding of No Adverse Effect with Standard Conditions or Finding of Adverse Effect and Memorandum of Agreement	Finding of No Adverse Effect with Standard Conditions was completed on March 26, 2007.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

- Farmlands/Timberlands—Project would not require the conversion of farmland or timberland for transportation use (field visit, February 3, 2006).
- Geology/Soils/Seismic/Topography—Project limits do not contain any geological, soil, or seismic concerns as they relate to public safety and project design (field visit, April 3, 2001).
- Invasive Species—No invasive species were identified in the project area during the biological studies (Natural Environment Study, August 18, 2006).

2.1 Human Environment

2.1.1 Land Use

2.1.1.1 Existing and Future Land Use

Affected Environment

Most of the project area is open desert with a few parcels zoned as Limited Agriculture, Estate, or Medium Industrial. A few single-family homes, mobile homes, and businesses dot the west side of State Route 14 within the project limits.

Much of the land in the project area is owned by the Bureau of Land Management and is designated as Resource Management in the Kern County General Plan. Areas with this designation in Eastern Kern County are undeveloped, non-urban areas that do not warrant additional planning in the foreseeable future due to current population, marginal physical development or lack of subdivision activity.

Environmental Consequences

The project is consistent with local and regional land use and transportation planning.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation would be required.

2.1.1.2 Consistency with State, Regional, and Local Plans

Affected Environment

The high truck volumes, strategic location, and environmental setting of State Route 14 have resulted in numerous special designations for the route by the State of California and the federal government. State Route 14, constructed on its present alignment in 1928, currently operates as a two-lane conventional highway; however, the ultimate roadway is a four-lane divided expressway.

The Kern County General Plan dictates land use and circulation policy in the project area. The circulation element of the Kern County General Plan (2004) designates State Route 14 as an arterial within the project limits. Standards for arterial streets established by the general plan call for a typical right-of-way of 110 feet. The Freeman Gulch Four-Lane project supports the land use and circulation element of the general plan.

The Freeman Gulch Four-Lane project lies in an area served by the Eastern California Transportation Planning Partnership. This partnership is composed of Inyo and Mono Regional Transportation Planning Agencies and the Kern and San Bernardino Metropolitan Planning Organizations. All parties involved have acknowledged the need for and benefits of upgrading the State Route 14/U.S. Highway 395 corridor. As a result, Memoranda of Understanding have been developed by member agencies to assist in funding various projects throughout the planning area.

The Freeman Gulch Four-Lane project is included in the Kern Council of Governments' 2004 Regional Transportation Plan and the State Transportation Improvement Program. The project is also included in the 2006 Kern County Regional Transportation Improvement Program that was approved by the California Transportation Commission on April 27, 2006. The Freeman Gulch Four-Lane project is included in the 2006 Federal Transportation Improvement Program, which was regionally adopted on July 20, 2006. The 2006 Federal Transportation Improvement Program is included in the 2007 Federal Statewide Transportation Improvement Program that was approved by the Federal Highway Administration and the Federal Transit Administration on October 2, 2006.

Environmental Consequences

The proposed project is consistent with local planning.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation would be required.

2.1.2 Growth

Regulatory Setting

The Council on Environmental Quality regulations, which implement the National Environmental Policy Act of 1969, require evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The Council on Environmental Quality regulations, 40 Code of Federal Regulations 1508.8, refer to these consequences as secondary impacts. Secondary impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act also requires the analysis of a project's potential to induce growth. California Environmental Quality Act guidelines, Section 15126.2(d), require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

Affected Environment

Most of the project area is open desert with a few parcels zoned as Limited Agriculture, Estate, or Medium Industrial. A few single-family homes, mobile homes, and businesses dot the west side of State Route 14 within the project limits.

Much of the land in the project area is owned by the Bureau of Land Management and is designated as Resource Management in the Kern County General Plan. Areas with this designation in Eastern Kern County are undeveloped, non-urban areas that do not warrant additional planning in the foreseeable future due to current population, marginal physical development, or lack of subdivision activity.

According to the City of Ridgecrest General Plan, the majority of population growth in the Indian Wells Valley is expected to occur within the current city limits. The proposed project is located west of Ridgecrest beyond the city limits. Both Ridgecrest and the County of Kern do not have plans for development within the project area.

Environmental Consequences

The proposed project is consistent with local and regional land use and transportation planning. The project is a response to the current traffic safety conditions and to the objective of providing a continuous four-lane roadway along the entire length of State Route 14 from Los Angeles County through Kern County. In addition, the proposed project would satisfy the ultimate route concept goal of converting this segment of State Route 14 into a four-lane expressway.

Population or economic growth is not projected by Ridgecrest and Kern County. Therefore, the project conforms to local planning by not directly or indirectly inducing residential development, population growth, or economic activity within the project area. The Kern County General Plan encourages higher density residential land use to be located in urban areas near commercial facilities. The majority of the project area is comprised of undeveloped, rural land.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation would be required.

2.1.3 Community Impacts

2.1.3.1 Relocations

Regulatory Setting

The Caltrans Relocation Assistance Program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and Title 49 Code of Federal Regulations, Part 24. The purpose of the Relocation Assistance Program is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix G for a summary of the Relocation Assistance Program.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 United States Code 2000d, et seq.). Please see Appendix B for a copy of Caltrans' Title VI policy statement.

Affected Environment

Caltrans prepared a Draft Relocation Impact Statement, dated July 19, 2006, for this project. An updated Draft Relocation Impact Statement was prepared September 10, 2006.

The Bureau of Land Management owns most of land along State Route 14 throughout the project limits. A few pockets of privately owned land sit at the following locations: both sides of State Route 14 at post miles 48.5, 50.1, 53.4, and 57.7 (at the State Route 178 West intersection); post mile 58.8; east of State Route 14 at post mile 60.7 (at the State Route 178 East intersection); and both sides of State Route 14 at post mile 61.2.

Environmental Consequences

To construct the improvements to the highway, each of the three build alternatives requires acquiring strips of land from the parcels adjoining State Route 14, resulting in various acquisitions and potential displacements. Alternatives 1 and 3 would require as many as 16 full acquisitions, including seven single-family residences, five mobile homes, and four businesses. Alternative 2 would require as many as 12 full acquisitions, including six single-family residences, two mobile homes, and four businesses.

Table 2.1 shows the potential residential and non-residential displacements for each alternative.

Table 2.1 Summary of Potential Residential and Non-Residential Displacements by Alternative

Unit	Alternative 1	Alternative 2	Alternative 3	No-Build Alternative
Total single-family units	7	6	7	None
Mobile homes	5	2	5	None
Multi-family units	None	None	None	None
Estimated total of residential displacements (Unit/Residents)	12 units 36 residents* (12/36)	8 units 24 residents* (8/24)	12 units 36 residents* (12/36)	None
Non-residential displacements (Business/Employees**)	Storage facility at post mile 50.4. Store-mini market, antique store/ museum, barn and carport sales yard: "Robber's Roost" at post mile 53.8 (4/4)	Storage facility at post mile 50.4. Store-mini market, antique store/ museum, barn and carport sales yard: "Robber's Roost" at post mile 53.8 (4/4)	Storage facility at post mile 50.4. Store-mini market, antique store/ museum, barn and carport sales yard: "Robber's Roost" at post mile 53.8 (4/4)	None

**The estimate of residential displacements is based on an average of 3.0 residents per household as determined by the Department of Finance Demographic Research Unit for January 2005 for Kern County.*

***Estimate of employees is based on a visual survey of potentially affected businesses.*

Avoidance, Minimization, and/or Mitigation Measures

A review of the classified ads section of the local newspaper and multiple listings provided by two realty companies that specialize in real estate in the area indicated that there is adequate housing available for individuals displaced by the proposed project.

Table 2.2 shows the results of a study of the local real estate market for both housing and business property availability.

Table 2.2 Summary of Relocation Resources Available to Displacees (Residential and Non-Residential)

Resource	For Rent	For Sale	Total Units
Multi-family residences (apartments, duplexes, triplexes, and quadplexes)	10	15	25
One-bedroom houses	2	3	5
Two-bedroom houses	4	15	19
Three-bedroom houses	15	85	100
Four-, five-, and six-bedroom houses	10	52	62
Mobile homes	2	10	12
Industrial/commercial properties	1	10	11
Horse/cattle ranches	0	1	1

All land acquisitions are subject to the Uniform Relocation Act. Caltrans and the Federal Highway Administration must comply with all requirements of the act. Appendix G of this report discusses these acquisition and compensation measures.

Funding would be available to relocate or re-establish any home or business affected by the project. The Relocation Payment Program would help eligible residential occupants by paying certain costs and expenses necessary for, or incidental to, the purchase or rental of replacement housing and actual reasonable moving expenses to a new location within 50 miles of the displacement property.

2.1.3.2 Environmental Justice

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* signed by President Clinton on February 11, 1994. This order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations

to the greatest extent practicable and permitted by law. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2000, this was $17,603 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is shown by its Title VI policy statement, signed by the director of Caltrans (see Appendix B of this document).

Affected Environment

Most of the project area is open desert. Much of this land is owned by the Bureau of Land Management. A few parcels along State Route 14 are zoned as Limited Agriculture, Estate, or Medium Industrial; on these parcels, a few single-family houses, mobile homes, and businesses dot the west side of State Route 14 in the project limits.

According to the Kern County Census, the median household income in the project's census tract is $51,700, which is well above the Department of Health and Human Services poverty threshold of $17,603 for a family of four. According to the Kern County Census, the racial makeup of the census tract is 90% white, which is well above the Kern County average of 61.6%. The other 10% consists of black, American Indian, Asian, native Hawaiian and other Pacific Islander, other race, and mixed race—none of these groups consists of more than 3.3% of the population.

Environmental Consequences

Based on the above discussion and analysis, the proposed project would not cause disproportionately high and adverse effects on any minority or low-income populations per Executive Order 12898 regarding environmental justice.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation would be required.

2.1.4 Utilities/Emergency Services

Affected Environment

Within the project limits, several utilities are located west and east of State Route 14: Southern California Edison electric lines and SBC and Verizon phone lines.

Fire protection and law enforcement facilities are located east of the proposed project site, in the cities of Inyokern and Ridgecrest.

Environmental Consequences

All build alternatives would require relocating utilities. Power lines and poles associated with Southern California Edison, SBC, and Verizon would be relocated.

The project proposes to upgrade the State Route 14 intersections at State Route 178 West and State Route 178 East. With these two intersections brought up to current design standards, emergency services such as fire protection and law enforcement would have increased room and improved sight distance for making safer turns onto and off of State Route 14. In addition, under the build alternatives, adding an additional through lane in each direction and widening the existing shoulders to 8 feet would give motorists ample room to pull over for emergency vehicles to pass.

Avoidance, Minimization, and/or Mitigation Measures

Before construction, utilities affected by the project would be relocated in coordination with utility companies.

In addition, State Route 14 and adjoining roads would remain accessible during construction to avoid delays in emergency service. Caltrans' efforts to inform and coordinate with emergency and other public services would minimize disruption.

2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities

Regulatory Setting

Caltrans, as assigned by the Federal Highway Administration, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the roadway.

Caltrans and the Federal Highway Administration are committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide

equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

Affected Environment

The existing roadway within the project limits operates as a two-lane conventional highway with 4-foot outside shoulders and no median. The roadway pavement is cracked, and the existing slopes on the sides of the roadway are steep. Bicycle travel is allowed on this portion of State Route 14 and on the adjoining State Route 178. Currently, there are no dedicated bike paths or lanes on either of these roads, and there are no plans to provide them in the future.

Traffic flow is defined through the use of a Level of Service rating. Level of Service indicates how freely or constrained traffic flows along a road segment or through an intersection. A Level of Service rating ranges from "A," indicating free-flowing traffic, to "F," indicating substantial congestion with traffic demand exceeding capacity. The length of the proposed project currently has a Level of Service C. In addition, the intersections of State Route 14 with State Route 178 West and State Route 178 East have a Level of Service B. The entire project length and the two intersections are projected to maintain their current Level of Service through the year 2032.

Environmental Consequences

The proposed project would place down an asphalt concrete overlay, correct slopes, widen paved shoulders, add a median, and upgrade the two intersections (State Route 14 at State Route 178 West and at State Route 178 East). All build alternatives of the proposed project would improve this segment of State Route 14 to a Level of Service A, except for the two intersections with State Route 178, which would remain at the current Level of Service B.

The project would improve safety and operation on this portion of State Route 14. An additional through lane in each direction would improve the operation and overall Level of Service of the roadway by easing peak traffic congestion and queuing, and removing passing restrictions. Adding a median would further separate opposing traffic. Upgrading the intersections of State Route 14/State Route 178 West and State Route 14/State 178 East would bring these locations up to current design standards and provide motorists with improved sight distance and safer turning capability. Widened paved shoulders would provide an emergency area for motorists to pull off the road.

Bicycle touring is becoming increasingly popular on State Route 14 and would benefit from construction of the 10-foot paved outside shoulders.

During construction of the proposed project, temporary impacts to traffic would occur. However, this portion of State Route 14 would remain open to traffic. Motorists would continue to use the existing roadway while the new lanes were being constructed 100 feet away. During construction of the alignment shift and the improvements at the two intersections, however, Caltrans would use one-way traffic control during non-peak hours.

Avoidance, Minimization, and/or Mitigation Measures

During construction, a traffic management plan would help reduce traffic delays, congestion, and accidents. Standard Caltrans construction practices include providing information on roadway conditions, using portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and a traffic contingency plan for unforeseen circumstances and emergencies.

The Caltrans Public Affairs Office would keep the local media informed of construction progress and information pertaining to delays, closures, and major changes in traffic patterns. The resident engineer would provide this information through both the Caltrans District 6 Transportation Management Center and the Caltrans District 9 Traffic Branch.

2.1.6 Visual/Aesthetics

Regulatory Setting

The National Environmental Policy Act of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* and culturally pleasing surroundings [42 United States Code 4331(b)(2)]. To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act [23 United States Code 109(h)] directs that final decisions regarding projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

Likewise, the California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state

"with…enjoyment of *aesthetic*, natural, scenic, and historic environmental qualities." [California Public Resources Code Section 21001(b)]

Affected Environment

Caltrans prepared a Visual Impact Assessment, dated August 1, 2006, for this project.

The project lies in the high desert region of the northern Mojave Desert. The area, known locally as Indian Wells Valley, is surrounded by four distinct mountain ranges. To the west lies the southern Sierra Nevada range. To the north lie the Coso Mountains, with Telegraph Peak in the distance at an elevation of 11,000 feet. To the east lie the El Paso Mountains, and to the northeast is the Argus range, with Matarango Peak at an elevation of 8,000 feet. The floor of the valley is desert consisting of sandy soils.

The Visual Impact Assessment defined and studied landscape units in and around the proposed project. One landscape unit in the project area seen by the traveling public is the high desert creosote bush scrub vegetation series, a plant series of evergreen and deciduous shrubs. The creosote bush scrub vegetation covers the ground from the edge of the highway up to the mountainsides.

Environmental Consequences

The existing high visual quality of State Route 14 and its surroundings is due mostly to the following:

- The vastness of the unimpeded view.
- The native vegetation (harmonious visual patterns of shrubs, forbs, cacti, and grasses).
- The dramatic vistas of the Sierra Nevada range, El Paso Mountains, Coso Mountains, and Argus range.

The project would have little impact on the visual quality of the surrounding view. Construction would be mostly on the valley floor. Expanding the existing two-lane highway to four lanes may actually allow motorists a clearer view of the surrounding peaks, distant mountain ranges, and playa.

Most of the visual impact from the project would come from the disturbance and removal of native vegetation during construction. This would be a temporary impact since the reestablishment of native creosote bush scrub and grasses could take up to five years or more, depending on precipitation and other climatic factors. Measures to

protect and preserve existing vegetation whenever feasible would greatly enhance the post-construction visual quality of this rural desert landscape.

Altering landforms by either cuts or fills has the potential to create permanent visual impacts. However, measures to blend the changes with the existing topography would help to restore the scenic quality and mitigate the visual impact.

Avoidance, Minimization, and/or Mitigation Measures

Implementation of the mitigation measures below would reduce the visual impacts of the project so that impacts do not result in substantial changes to the overall visual quality:

1. Slope grades would be constructed to facilitate planting, erosion control, and ease of maintenance.
2. The selection of materials and methods for the revegetation project is critical for erosion control and restoring the visual quality. This project would not be irrigated. It is critical that compacted grades on slopes and in the median be cultivated before the installation of duff and seed. This would enable the deep rooting of new vegetation, allowing it to survive the summer extremes of drought. The seed mix, application rates, and planting methods should be determined by or approved in cooperation with a Caltrans Landscape Architecture representative.
3. To preserve the native seed stock and natural chemical compounds, it is critical to collect and store topsoil/duff for placement on disturbed areas before replanting.
4. Institute a plan to minimize the removal of existing vegetation wherever feasible.
5. A split alignment between the northbound and southbound lanes is recommended for the northern limits of the project due to the high visibility of the horizon line of the slope and the view of the cut and fill slopes from the valley. This would reduce the visual impact of this section of the project and blend it into the existing landform. See Figure 2-1.

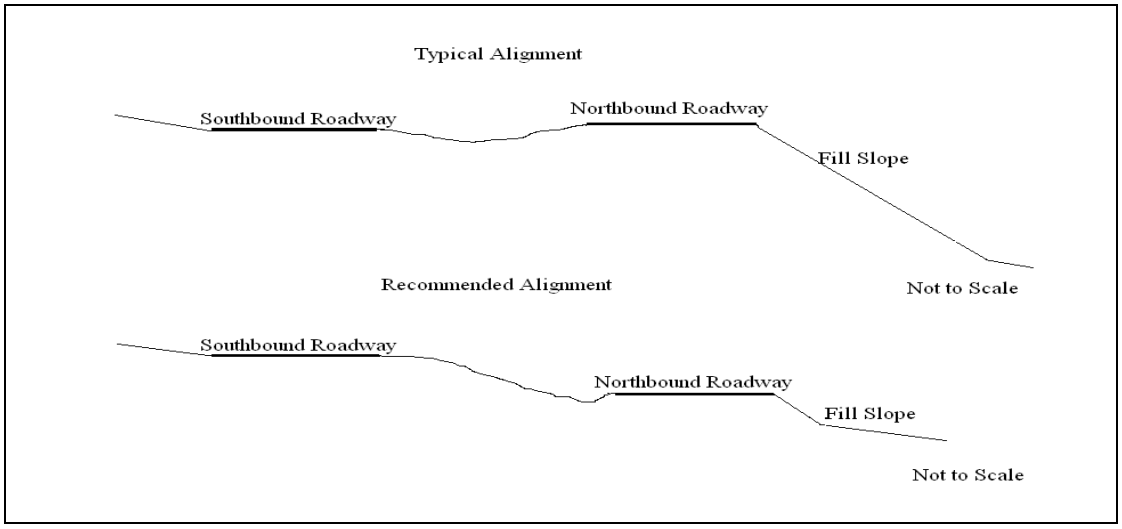


Figure 2-1 Split Alignment: Typical Alignment and Proposed Alignment

2.1.7 Cultural Resources

Regulatory Setting

"Cultural resources" as used in this document refers to historic and archaeological resources. The primary federal laws dealing with cultural resources include the following:

The National Historic Preservation Act, as amended, sets forth national policy and procedures regarding historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2004, a Section 106 Programmatic Agreement among the Advisory Council, the Federal Highway Administration, the State Historic Preservation Officer, and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council's regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration's responsibilities under the agreement have been assigned to Caltrans

as part of the Surface Transportation Delivery Pilot Program (23 Code of Federal Regulations 773) (July 1, 2007).

The Archaeological Resources Protection Act applies when a project may involve archaeological resources located on federal or tribal land. This act requires that a permit be obtained before excavation of any archaeological resource on such land can take place.

Under state law, historical resources are considered under the California Environmental Quality Act as well as California Public Resources Code Section 5024.1, which established the California Register of Historical Resources. Section 5024 of the Public Resources Code requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historical resources that are listed in or are eligible for inclusion in the National Register or are registered or eligible for registration as California Historical Landmarks.

Affected Environment

A Historic Property Survey Report was completed in February 2006. The report fulfilled three of the Federal Highway Administration's responsibilities under Section 106 of the National Historic Preservation Act: 1) determination of the Area of Potential Effects; 2) identification of potential historic properties located within the undertaking's Area of Potential Effects; and 3) evaluation of potential historic properties for eligibility for the National Register of Historic Places.

Standard sources of information on cultural resources were consulted for the proposed project, including the following: the National Register of Historic Places, records held at the State Office of Historic Preservation, the California Historical Landmarks, the California Inventory of Historic Resources, the Caltrans California Historic Bridge Inventory, and site records and reports filed at the Eastern Information Center of the California Historical Resources Information System at the University of California, Riverside.

Additional sources included the Maturango Museum (Ridgecrest); Kern County Recorder's, Clerk's, and Assessor's offices in Bakersfield; the U.S. Department of the

Interior Bureau of Land Management in Ridgecrest; and Caltrans District 9 cultural resources inventory files and historic maps in Bishop.

The Area of Potential Effects encompassed the areas within the existing and proposed right-of-way boundaries, except where potential archaeological sites extended beyond the boundaries of the Area of Potential Effects. In those spots, the Area of Potential Effects extended beyond the proposed right-of-way and around the site boundaries.

A field survey of the proposed project area was conducted in May and June 2002. An addendum survey was completed in October 2004 to cover areas within the Area of Potential Effects that had not been examined during the initial survey because permission had not yet been obtained to enter those parcels.

The field surveys identified 25 cultural resources or sites requiring formal evaluation within the Area of Potential Effects: five historic-era archaeological resources and 20 prehistoric archaeological sites. None of the 25 cultural resources requiring formal evaluation had been previously determined eligible for the National Register of Historic Places. Two properties identified during the study (CA-KER-3297 and CA-KER-3278) had been previously determined not eligible for the National Register of Historic Places. In addition, the existing Freeman Gulch Bridge (#50-14) had previously been evaluated by Caltrans and was determined not eligible.

Test excavation investigations were conducted for 23 cultural resources within the proposed project area. Fieldwork for this evaluation phase was conducted throughout November 2004, with additional fieldwork conducted in late February to early March 2005. The goal of this work was to determine whether or not the 23 cultural resources identified were eligible for inclusion into the National Register of Historic Places.

After the initial fieldwork, a new set of proposed frontage roads was added to the project design. The design of these frontage roads extended beyond the boundaries of the previously determined Area of Potential Effects for cultural resources. As a result, a supplemental field survey was completed in August 2006 to examine the areas where the proposed frontage roads would be constructed. No additional cultural resources were identified during this supplemental survey, and a Supplemental Negative Historic Property Survey Report was completed for the project.

Properties Eligible for the National Register of Historic Places

CA-KER-6204. This limited habitation and lithic scatter site contains a burn feature (possible rabbit-roasting hearth). This site was evaluated and is eligible for the National Register of Historic Places under Criterion D for providing information on a previously undocumented practice of desert cottontail rabbit use and processing that is important to the understanding of local prehistoric adaptations.

CA-KER-6205. This limited habitation and lithic scatter site contains two features: 1) a wide and shallow desert cottontail rabbit-roasting feature and 2) a small baked-earth area, compact and almost black in color, which contains no cultural material. The features at this site, like CA-KER-6204, are unusual for this region, because they are relatively undocumented throughout the region. The radiocarbon date from the first feature corresponds to the Marana Period (same dating as for CA-KER-6204). The integrity of the site can be measured by the intact nature of both features and associated artifacts. This site is eligible for the National Register of Historic Places under Criterion D for its ability to address research issues concerning prehistoric subsistence adaptations.

Properties Not Eligible for the National Register of Historic Places

The following archaeological sites were determined to be not eligible for the National Register of Historic Places: CA-KER-6210, CA-KER-6212, CA-KER-6207, CA-KER-6213, CA-KER-6214, CA-KER-6701, CA-KER-6215, CA-KER-6700, CA-KER-6198, CA-KER-6199, CA-KER-6200, and CA-KER-6218H (Miley's Station), CA-KER-6197, CA-KER-6203, CA-KER-6202, CA-KER-6209, CA-KER-6206, CA-KER-6211, and CA-KER-6208.

In addition, three architectural properties (APN 064-173-07, APN 341-020-28 and APN 341-060-11) and one roadside memorial (see memorial details below) were evaluated and determined not eligible for the National Register of Historic Places.

In February 2006, Caltrans sought concurrence from the State Historic Preservation Officer regarding the National Register of Historic Places eligibility and/or non-eligibility of the identified cultural resources. On March 24, 2006, the State Historic Preservation Officer concurred with Caltrans' determinations that two cultural resources in the proposed project's Area of Potential Effects are eligible for inclusion into the National Register of Historic Places and 23 cultural resources are not eligible for such inclusion (see concurrence letter in Appendix C).

A local roadside memorial marker—a memorial cross in honor of Father John J. Crowley who was killed in an automobile accident near the site—stands in the Caltrans right-of-way. After Crowley's death in 1940, the Ridgecrest Chapter of The Knights of Columbus built the memorial. The memorial has been vandalized and replaced several times since its original construction. The memorial is dilapidated and is no longer in its original design. It is not a good example of type or design and does not have any potential to yield further important historical information.

Environmental Consequences

Alternatives 1 and 3

For Alternatives 1 and 3, it was determined that there would be a Finding of No Adverse Effect with Standard Conditions for CA-KER-6204 and CA-KER-6205, the two archaeological sites eligible for the National Register of Historic Places. Per Section X.B.2.ii of the Programmatic Agreement, Caltrans would impose standard conditions that would avoid all adverse effects to these sites by designating Environmentally Sensitive Areas.

CA-KER-6204. A small portion of this site falls within the Area of Potential Effects. With the selection of Alternative 1 or Alternative 3, this site may fall outside of the Area of Direct Impact and, therefore, would not be adversely affected.

CA-KER-6205. A large portion of this site falls within the Area of Potential Effects. With the selection of Alternative 1 or Alternative 3, a small portion of this site may be near the Area of Direct Impact, but would not be adversely affected.

Alternative 2

For Alternative 2, in applying the Criteria of Adverse Effect [36 Code of Federal Regulations 800.5(a)(1)], it was determined there would be a Finding of Adverse Effect for CA-KER-6204 and CA-KER-6205, the two archaeological sites eligible for the National Register of Historic Places.

CA-KER-6204. A small portion of this site falls within the Area of Potential Effects. Under Alternative 2, this site would possibly fall within the Area of Direct Impact and would be adversely affected.

CA-KER-6205. A large portion of this site falls within the Area of Potential Effects. Under Alternative 2, this site would possibly be within the Area of Direct Impact and be adversely affected.

Native American consultation efforts included contacts with the Native American Heritage Commission, the Kern Valley Indian Community, and the Tehachapi Indian Tribe. To date, no Native American concerns with respect to the project have been received.

All Alternatives

For the roadside memorial in the project area, Caltrans consulted with the Ridgecrest Chapter of The Knights of Columbus about the Father John J. Crowley memorial cross. The memorial stands in the Caltrans right-of-way and would be affected by any of the project's build alternatives. Representatives for the Ridgecrest Chapter of The Knights of Columbus said the chapter wanted the memorial preserved.

Avoidance, Minimization, and/or Mitigation Measures

Alternatives 1 and 3

A Finding of No Adverse Effect with Standard Conditions would be prepared for the Freeman Gulch Four-Lane project if Alternative 1 or 3 is chosen. Archaeological sites CA-KER-6204 and CA-KER-6205 would be avoided by being designated as Environmentally Sensitive Areas, which would protect the sites with signing, staking, and/or fencing and construction monitoring.

Alternative 2

Avoidance is the preferred method of treating sites eligible for the National Register of Historic Places. However, if Alternative 2 were chosen, avoidance would not be possible. Therefore, a Finding of Adverse Effect would be prepared for the Freeman Gulch Four-Lane project.

If Alternative 2 were chosen, a Memorandum of Agreement and a Treatment Plan would be prepared. The adverse effect to CA-KER-6204 and CA-KER-6205 would be mitigated through a data recovery program, establishing Environmental Sensitive Areas around the remaining portions of each site, and preparing a technical report. The Treatment Plan would be circulated to the Native American community, the Federal Highway Administration and the State Historic Preservation Officer for review and comment before final environmental document approval.

As outlined in the Treatment Plan, additional cultural work would be necessary before construction. In addition:

- Recorded portions of the site outside the Area of Direct Impact would be designated as Environmentally Sensitive Areas during construction.

- Archaeological monitoring and Native American monitoring would also be performed during construction as insurance against unanticipated effects upon the sites.

With the selection of Alternative 1 as the Preferred Alternative, A Finding of No Adverse Effect with Standard Conditions was prepared for this project. For the most part, the existing right-of-way fence would serve as a sufficient barrier between the archaeological sites CA-KER-6204 and CA-KER-6205 and the construction activities. In addition, Environmentally Sensitive Area fencing will serve as further protection for archaeological site CA-KER-6205. The integrity of the fence, as installed, would be monitored when construction activities take place within the vicinity of this site.

If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the county coroner contacted. Per Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, which would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Sarah Gassner, Central Region Archaeologist, so that she may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

All Alternatives

On May 18, 2006, Caltrans met with the Ridgecrest Chapter of The Knights of Columbus regarding the Father John J. Crowley memorial. The chapter agreed to search for nearby suitable private land where the memorial could be relocated.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. Requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project

The base floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the base floodplain."

Affected Environment

A Location Hydraulic Study was completed on October 30, 2002.

The topography of the project area is relatively flat terrain ranging in elevation from 3,000 to 3,300 feet. The average rainfall is 4.5 inches annually. The average temperature in January ranges from a low of 29.9 degrees Fahrenheit to a high of 59.8 degrees Fahrenheit. In August, the temperature ranges from a low of 65.7 degrees Fahrenheit to a high of 102.9 degrees Fahrenheit.

Flood Insurance Rate Maps were evaluated to determine if any portion of the proposed project is within an area that could be subjected to 100-year flooding. Between the project limits, State Route 14 crosses the 100-year floodplain at five different locations along the route: the Little Dixie Wash at post mile 49.2, post mile 50.8, post mile 51.5, Sage Canyon Wash at post mile 52.3, and the Freeman Gulch Wash at post mile 56.4.

Environmental Consequences

The project proposes to convert the existing two-lane conventional highway into a four-lane divided controlled-access expressway. All build alternatives of the project would not constitute a significant floodplain encroachment as defined under 23 Code of Federal Regulations, Section 650.105(q).

Avoidance, Minimization, and/or Mitigation Measures

The proposed project would not have a significant impact on the floodplain if the new alignment were maintained at the same elevation or higher than the existing highway profile.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act requires water quality certification from the State Water Resources Control Board or from a Regional Water Quality Control Board when the project requires a Clean Water Act Section 404 permit to dredge or fill within a water of the United States.

Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine Regional Water Quality Control Boards. The State Water Resources Control Board and Regional Water Quality Control Boards also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

The State Water Resources Control Board has developed and issued a statewide National Pollutant Discharge Elimination System permit to regulate storm water discharges from all Caltrans activities on its highways and facilities. Caltrans construction projects are regulated under the statewide permit, and projects performed by other entities on Caltrans right-of-way (encroachments) are regulated by the State Water Resources Control Board's Statewide General Construction Permit. All construction projects require a Storm Water Pollution Prevention Plan to be prepared and implemented during construction.

Affected Environment

A water quality evaluation was completed on October 22, 2003.

Several drainage channels cross State Route 14 within the project limits: the Little Dixie Wash at post mile 49.2, the Sage Canyon Wash at post mile 52.3, the Freeman Gulch Wash at post mile 56.4, and two other unnamed washes. All washes are tributary to China Dry Lake.

Currently throughout the length of the project, storm water is directed to areas beyond the shoulders on both the west and east side of State Route 14. In areas where the highway was constructed through cut slopes or on top of fill material, asphalt concrete berms or dikes direct storm water to downdrains that transmit water away from the roadway.

Environmental Consequences

The project would require building a new Freeman Gulch Bridge (#50-14R) and widening or replacing of the existing Freeman Gulch Bridge (#50-14, which would become #50-14L). Several of the drainage crossings within the project limits would be upgraded to reinforced concrete boxes.

After the project is completed, storm water runoff would continue to be directed to areas beyond the shoulders. The volume of runoff after project completion would be greater due to precipitation falling on the additional lanes and paved shoulders. Aside from an increased runoff volume, the quality of storm water runoff is unlikely to be different from the quality of the present storm water runoff.

Avoidance, Minimization, and/or Mitigation Measures

Construction site pollutants are controlled by the use of structural devices, such as silt fences and straw bales, and non-structural activities such as good housekeeping and construction-related waste management. These devices and activities are called Best Management Practices. The reason for using Best Management Practices on construction projects is to reduce water pollutants coming from Caltrans construction projects as much as possible.

A Storm Water Pollution Prevention Plan would be prepared by the contractor and implemented during construction to the satisfaction of the resident engineer. The Storm Water Pollution Prevention Plan would identify the sources of sediment and other pollutants that affect the quality of storm water discharges. The plan would also describe and ensure the implementation of Best Management Practices to reduce or

eliminate sediment and other pollutants in storm water as well as non-storm water discharges.

Caltrans and the contractor for the project would address all potential water quality impacts that may occur during construction. If the potential water quality impacts are correctly identified and mitigated by Best Management Practices, it is unlikely that the proposed project would have any adverse effect on surface or groundwater quality.

2.2.3 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. Although there is no federal law that specifically protects natural or paleontological resources, there are a number of laws that have been interpreted to do so—the primary law being the Antiquities Act of 1906, which protects historic or prehistoric ruins or monuments and objects of antiquity. The act has been amended to specifically allow funding for paleontological mitigation. Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Administrative Code, Title 14, Section 4306 et seq., and Public Resources Code Section 5097.5.

Affected Environment

Caltrans prepared a Paleontological Identification Report, dated August 15, 2006, for this project.

The project area lies in the southwest corner of Indian Wells Valley between Red Rock Canyon and Indian Wells. The sediment underlying the project area is Quaternary sand-gravel alluvium.

Just south and adjacent to the beginning of the project, Quaternary alluvium is underlain by the Dove Spring Formation north of Red Rock Canyon State Park. In 1997, Caltrans conducted paleontology mitigation in the Dove Spring Formation for another widening project on State Route 14. That project, known as the Red Rock Canyon Widening project, covered a 4.2-mile stretch of State Route 14 with its northern limit overlapping with the southern limit of the Freeman Gulch Four-Lane project. The 1997 mitigation plan documented the existence of paleontology resources within the Quaternary alluvium overlying the Dove Spring Formation.

The Los Angeles County Museum of Paleontology, University of California, Riverside, and University of California Museum of Paleontology recorded more than 800 fossil sites in or near the right-of-way for the Red Rock Canyon Widening project. It was reported that the Dove Spring Formation contains the most complete land mammal faunal succession of late-Barstovian-to-early-Hemphillian-age in the southwestern United States.

Environmental Consequences

Caltrans staff reviewed the proposed improvements for the Freeman Gulch Four-Lane project with respect to potential paleontology resources. The preliminary evaluation included review of the following: the Department of Geology Paleontological Sensitivity Mapping Project Database at California State University, Fresno; geological maps; and geological and paleontological literature. Caltrans determined that there may be high-sensitivity paleontology resources in the area of the proposed project.

The excavation for the proposed project, especially near the southern end of the project limits, appears likely to affect important paleontological resources of scientific interest.

The Paleontological Evaluation Report, dated July 2007, studied the impact of the Preferred Alternative. Research for the report included a literature search and museum archival search of paleontological resources in the project study area, consultation with paleontologists with expertise in the project study area, identification of geologic strata that would be potentially affected by project-related activities, and an assessment of the potential for these strata to contain important paleontological resources.

Earth-moving activities associated with construction in the project area might result in the disturbance or loss of an undetermined number of recorded fossil sites and scientifically important fossil remains, associated fossil specimen data, and corresponding geologic and geographic locality data. However, with appropriate mitigation, such earth-moving activities might result in beneficial effects. This includes the exposure of fossil remains that would not have been available for recovery without the project.

Impacts on paleontological resources that might result from earth-moving activities would potentially occur between post mile 45.9 and post mile 52.0 in the southern

part of the project area. At this location, excavation cuts would be up to 80 feet wide and up to 18 feet deep. There is also a potential for impacts at Freeman Gulch (post mile 56.4) where a new bridge would be constructed. The excavation cuts at this location would be up to 80 feet wide and up to 18 feet deep. The impacts would be lower north of post mile 52.0, where cuts would not exceed 3 feet in depth.

Avoidance, Minimization, and/or Mitigation Measures

A Preliminary Paleontological Mitigation Plan, dated July 2007, was prepared for this project. A qualified principal paleontologist (Master of Science or Ph.D. in paleontology or a geologist familiar with paleontological procedures and techniques) will prepare a detailed Paleontological Mitigation Plan before the start of construction.

The implementation of the Paleontological Mitigation Plan would be in compliance with Caltrans paleontological mitigation guidelines and with Society of Vertebrate Paleontology standard measures for mitigation of construction-related impacts on paleontological resources and for a museum's acceptance of a mitigation program fossil collection.

The following measures would be conducted by the Paleontological Contractor selected by Caltrans to implement the Paleontological Mitigation Plan:

- A qualified Principal Paleontologist would be retained prior to the start of construction to implement the Paleontological Mitigation Plan. The Paleontologist would have a Master of Science or Ph.D. degree in paleontology or geology and would be familiar with paleontological salvage or mitigation procedures and techniques. If required by Caltrans, all geologic work would be performed under the supervision of a California Professional Geologist.
- The Principal Paleontologist would develop a written storage agreement with a recognized museum repository regarding the permanent storage and maintenance of any fossil remains recovered under the Paleontological Mitigation Plan.
- Prior to the start of earth-moving activities, the Principal Paleontologist and/or their Field Supervisor, along with one or more Field Technicians, would conduct a comprehensive preconstruction field survey of those portions of the project area that are underlain by previously undisturbed strata in the older alluvium.
- The Principal Paleontologist and/or their Field Supervisor would be present at a preconstruction meeting to consult with Grading and Excavation Contractors.

During the meeting, the Paleontologist and/or the Field Supervisor would conduct an employee environmental awareness training session for all personnel who would be involved in earth-moving activities.

- Initially, a Paleontological Monitor, under the direction of the Principal Paleontologist or the Field Supervisor, would be onsite full-time during excavation between post miles 45.9 and 52.0 and at Freeman Gulch to inspect new exposures in the larger cuts created by earth-moving activities in areas underlain by older alluvium, unless the results of the preconstruction field survey indicate that only part-time monitoring is warranted. North of post mile 52.0, where only smaller cuts would be created, monitoring would be conducted on a spot-check basis. If too few or no fossils remains have been recovered after 50 percent of these earth-moving activities have been completed, monitoring could be reduced from full to part-time or from part-time to spot-checking, or, if spot-checking already is in effect, suspended. Monitoring in areas underlain by alluvium would be conducted on a half-time basis only when and where such activities have reached a depth of five feet below the current grade.
- If fossil remains were discovered, the Paleontological Monitor would recover them. If necessary, earth-moving activities at the fossil locality would be halted or temporarily diverted around the locality to allow for complete recovery of the remains. The Monitor would be equipped to allow for the timely recovery of such remains. If necessary to reduce the potential for delay of earth-moving activities, additional personnel would be assigned to the recovery of an unusually large or productive fossil occurrence.
- Bulk samples of fine-grained sediment would be recovered from fossilferous or potentially fossilferous strata and processed to allow for the recovery of microvertebrate remains. The total weight of these samples would not exceed 6,000 pounds from any rock unit.
- Fossil remains recovered under the Paleontological Mitigation Plan would be prepared to the point of identification, identified by knowledgeable paleontologists, curated, and cataloged in compliance with designated museum repository requirements.
- The entire fossil collection (along with associated specimen data and corresponding geologic and geographic locality data and copies of pertinent field notes, photos, and maps) would be transferred to the repository for permanent storage and maintenance. Associated specimen data and corresponding geologic

and geographic site data would be archived at the repository and, along with the fossil specimens, would be made available to paleontologists for study.

- A final report of findings that summarizes the results of the work conducted under the Paleontological Mitigation Plan would be prepared by the Principal Paleontologist and, if required, the Professional Geologist. A copy of the report would be filed at the museum repository.

2.2.4 Hazardous Waste Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The main federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The purpose of the Comprehensive Environmental Response, Compensation and Liability Act, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for "cradle to grave" regulation of hazardous wastes. Other federal laws include the following:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated mainly under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and

Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if such material is disturbed during project construction.

Affected Environment

Caltrans prepared an Initial Site Assessment, dated July 22, 2003, for this project. Caltrans updated the Initial Site Assessment by preparing an addendum, dated August 21, 2006.

For the evaluation, the following sources were consulted:

- Environmental First Database
- Kern County Environmental Health Department
- Water Quality Control Board's GEOTRACKER Database
- California Environmental Protection Agency's ECHO Database
- Department of Toxic Substance Control Envirostor Database (Cortese List)
- Scoping and Initial Site Assessments conducted by Caltrans staff on July 22, 2003

Sites were inspected in August 2006. The inspection found four sites were properties of concern with the potential to contain hazardous waste/substances:

1. The parcel known as Hart's Place has a low potential for hazardous waste even though formerly used underground storage tanks are stored onsite. The parcel was formerly the site of a gas station.

2. The parcel known as Armistead was formerly the site of a gas station. Currently, a mini-mart operates there. (This property was part of a 165-acre parcel once owned by Sidney T. Armistead. It is still called Armistead when referenced on the U.S. Geological Survey maps. It consists of old and abandoned buildings that once served as an office, store, motels, pump house, water tower, residence, garage, mobile home, and several sheds. To locals, the property is also known as Armistead's Station.)

3. The former Miley's Station has three underground storage tanks still buried onsite. In addition, numerous car parts, oil filters, and brake pads were found scattered throughout the parcel. Open pits/shafts were also found on the property.

4. The Freeman Gulch Bridge (#50-14) is concrete with steel girders. Erosion was noted on the bridge supports. The bridge also has treated wood posts.

Environmental Consequences

The Environmental First Search Database does not list any hazardous waste/substances sites in the project area. The Kern County Environmental Health Department does not have any case file information regarding Hart's Place, Armistead, the former Miley's Station property, or the Freeman Gulch Bridge. In addition, none of the parcels in the project area appear on the Cortese List, or GEOTRACKER or ECHO databases.

The four properties of concern have a medium risk to encounter hazardous waste. Further hazardous waste evaluations would need to be conducted at the Armistead parcel to properly assess for asbestos-containing materials and lead-based paint in the buildings.

The rest of the parcels within the project area are considered a low risk for hazardous waste.

Avoidance, Minimization, and/or Mitigation Measures

The appropriate Standard Special Provisions would be developed for this project to ensure that hazardous waste/substances discovered during construction activities would be handled appropriately.

The water well on the Hart's Place property should be properly abandoned, and the debris should be properly evaluated before disposal.

The existing underground storage tanks on the former Miley's Station property would have to be properly abandoned before construction activities. It is Caltrans' policy not to purchase sites contaminated with hazardous waste. The site should be assessed before purchase. Also, due to the open pits/shafts on the property, caution should be used during all construction activities.

The wood posts on the Freeman Gulch Bridge, if removed, should be treated as hazardous waste and properly disposed of in accordance with current regulations.

2.2.5 Air Quality

Regulatory Setting

The Clean Air Act, as amended in 1990, is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the concentration of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards. Standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

Under the 1990 Clean Air Act Amendments, the U.S. Department of Transportation cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to the State Implementation Plan for achieving the goals of the Clean Air Act requirements. Conformity with the Clean Air Act takes place at the regional level and the project level. The proposed project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for carbon monoxide, nitrogen dioxide, ozone, and particulate matter. California is in attainment for the other criteria pollutants.

At the regional level, Regional Transportation Plans are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the Regional Transportation Plan, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met.

If the conformity analysis is successful, the regional planning organization, such as the Kern Council of Governments and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the Regional Transportation Plan is in conformity with the State Implementation Plan for achieving the goals of the Clean Air Act. Otherwise, the projects in the Regional Transportation Plan must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the Regional Transportation Plan, the proposed project is deemed to meet regional conformity requirements for purposes of the project-level analysis.

Conformity at the project-level also requires "hot-spot" analysis if an area is in "nonattainment" or "maintenance" for carbon monoxide and/or particulate matter. A region is a "nonattainment" area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as non-attainment areas but have recently met the standard are called "maintenance" areas.

Hot-spot analysis is essentially the same, for technical purposes, as carbon monoxide or particulate matter analysis performed for National Environmental Policy Act and California Environmental Quality Act purposes. Conformity does include some specific standards for projects that require a hot-spot analysis. In general, projects must not cause the carbon monoxide standard to be violated, and in "nonattainment" areas, the project must not cause any increase in the number and severity of violations. If a known carbon monoxide or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

Affected Environment

Caltrans prepared an Air Quality Report, dated November 5, 2003, for this project.

The project lies in the Mojave Desert Air Basin, along the western edge of the Mojave Desert. The Mojave Desert sits in the rainshadow of the Sierra Nevada where the climate has extreme fluctuations of daily temperatures and strong seasonal winds. In late winter and early spring, wind is prominent, with dry winds blowing in the afternoon and evening. Winds in excess of 25 miles per hour and gusts of 75 miles per hour or more are common. The average annual precipitation is 5 inches.

The landforms of the Mojave Desert define the region as part of the Basin and Range Physiographic Province. This province is characterized by hundreds of long, narrow, and roughly parallel mountain ranges that are separated by deep valleys.

For this area, the Kern County Air Pollution Control District administers air quality regulations developed at the federal, state, and local levels. Ozone and particulate matter are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide, nitrogen dioxide, lead, and sulfur dioxide are considered to be local pollutants because they tend to accumulate in the air locally. Particulate matter is also considered as a local pollutant. In the area of the proposed project site, ozone and particulate matter are of particular concern.

See Table 2.3 for the state and federal air quality attainment statuses for the project area.

Table 2.3 Air Quality Emissions Analysis for Eastern Kern County (Indian Wells Valley)

Criteria Pollutant	**Federal Standard** (National Ambient Air Quality Standards)	**Federal Attainment Status**	**State Standard**	**State Attainment Status**
Carbon Monoxide (CO)	35 ppm (1-hour average) 9 ppm (8-hour average)	Attainment/ Unclassified	20 ppm (1-hour average) 9 ppm (8-hour average)	Unclassified
Nitrogen Dioxide (NO_2)	0.053 ppm (annual arithmetic mean)	Attainment/ Unclassified	0.25 ppm (1-hour average)	--
Ozone (O_3)	No 1-hour average 0.08 ppm (8-hour average)	Attainment/ Maintenance	0.09 ppm (1-hour average) 0.07 ppm (8-hour average)	Non-Attainment
Particulate Matter (PM_{10})	50 µg/m^3 (annual arithmetic mean)	Attainment/ Maintenance	20 µg/m^3 (annual arithmetic mean)	Non-Attainment
Particulate Matter ($PM_{2.5}$)	15 µg/m^3 (annual arithmetic mean)	Attainment/ Unclassified	12 µg/m^3 (annual arithmetic mean)	Non-Attainment
Sulfur Dioxide (SO_2)	0.030 ppm (annual arithmetic mean)	--	0.25 ppm (1-hour average)	Attainment

ppm = parts per million
Source: Air Resources Board (May 17, 2006)

Mobile Source Air Toxics

In addition to the criteria air pollutants discussed above for which there are National Ambient Air Quality Standards, the U.S. Environmental Protection Agency also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries). Mobile Source Air Toxics are a subset of the 188 air toxics defined by the Clean Air Act. The Mobile Source Air Toxics are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

Studies of the human health risks are inconclusive, however, and the Environmental Protection Agency has yet to establish air quality standards or guidelines for assessing the project-level effects of mobile air toxics. Such limitations make the study of mobile air toxic concentrations, exposures, and health impacts difficult and uncertain, especially on a quantitative basis.

This Initial Study/Environmental Assessment includes a basic analysis of the likely Mobile Source Air Toxics emission impacts of this project. However, available technical tools do not enable the ability to predict the project-specific health impacts of the emission changes associated with the alternatives in this Initial Study/Environmental Assessment. Evaluating the environmental and health impacts from Mobile Source Air Toxics on a proposed highway project would involve several key elements, including emissions modeling, dispersion modeling to estimate ambient concentrations resulting from the estimated emissions, exposure modeling to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the Mobile Source Air Toxics health impacts of this project.

As discussed above, technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of Mobile Source Air Toxics emissions and effects of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of Mobile Source Air Toxics at the project level, it is possible to qualitatively assess the levels of future Mobile Source Air Toxics emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from Mobile Source Air Toxics, it can give a basis for identifying and comparing the potential differences among Mobile Source Air Toxics emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the Federal Highway Administration entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*, found at: www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm

For each alternative in this Initial Study/Environmental Assessment, the amount of Mobile Source Air Toxics emitted would be proportional to the vehicle miles traveled, assuming that other variables such as fleet mix are the same for each alternative. The vehicle miles traveled estimated for each of the build alternatives is

slightly higher than that for the No-Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in vehicle miles traveled would lead to higher Mobile Source Air Toxics emissions for the selected build alternative along the highway corridor, along with a corresponding decrease in Mobile Source Air Toxics emissions along the parallel routes. The emissions increase is offset somewhat by lower Mobile Source Air Toxics emission rates due to increased speeds; according to Environmental Protection Agency's MOBILE6 emissions model, emissions of all of the priority Mobile Source Air Toxics except for diesel particulate matter decrease as speed increases. The extent to which these speed-related emissions decreases will offset vehicle miles traveled-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Because the estimated vehicle miles traveled under each of the proposed alternatives are nearly the same, varying by less than one percent, it is expected there would be no appreciable difference in overall Mobile Source Air Toxics emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of Environmental Protection Agency's national control programs that are projected to reduce Mobile Source Air Toxics emissions by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, vehicle miles traveled growth rates, and local control measures. However, the magnitude of the Environmental Protection Agency-projected reductions is so great (even after accounting for vehicle miles traveled growth) that Mobile Source Air Toxics emissions in the study area are likely to be lower in the future in nearly all cases.

Environmental Consequences

On October 2, 2007, the Federal Highway Administration made the air quality conformity determination that the Freeman Gulch Four-Lane project conforms to the State Implementation Plan in accordance with 40 Code of Federal Regulations Part 93 (see Appendix L).

The following discussion evaluates the impacts of the project as a whole.

Regional Analysis

The 2004 Regional Transportation Plan for Kern County was found to conform by the Kern Council of Governments on August 19, 2004. The Federal Highway Administration and Federal Transit Administration adopted the air quality conformity

finding on September 22, 2004. The design concept and scope of the proposed project are consistent with the 2004 Regional Transportation Plan, the Preliminary Environmental Analysis Report, and the assumptions in the Kern Council of Government's regional emissions analysis.

The State Route 14 Freeman Gulch Four-Lane Widening project is included in the 2006 Kern County Regional Transportation Improvement Program that was approved by the California Transportation Commission on April 27, 2006. The project is also included in the 2006 Federal Transportation Improvement Program, which was regionally adopted on July 20, 2006. The 2006 Federal Transportation Improvement Program is included in the 2007 Federal Statewide Transportation Improvement Program that was approved by the Federal Highway Administration and the Federal Transit Administration on October 2, 2006.

Project-Level Analysis

Carbon Monoxide Hot Spot Analysis

The proposed project is located in an area classified as "attainment/unclassified" with respect to the federal standard for carbon monoxide.

When evaluated in accordance with the *Transportation Project-Level Carbon Monoxide Protocol, Revised December 1997 (UCD-ITS-RR-97-21)*, the project was determined to be satisfactory, requiring no hot-spot analysis or further carbon monoxide analysis.

Particulate Matter Hot Spot Analysis

Particles less than 10 micrometers (PM_{10}) pose a potential public health concern because these small particles can be inhaled and accumulated in the human respiratory system. Particles less than 2.5 micrometers ($PM_{2.5}$) are thought to be the greatest risk because of their small size.

The project lies in an area classified as "attainment/maintenance" with respect to the federal standard for PM_{10}. According to the California Air Resources Board, the highest PM_{10} concentration measured near the project area between 2000 and 2002 was 90 micrograms per cubic meter measured at the 100 West Avenue station in Ridgecrest. During the same period, the highest measurement recorded at the China Lake-Powerline Road Station near China Lake was 115 micrograms per cubic meter. These particulate matter measurements indicate the PM_{10} concentrations did not exceed the federal PM_{10} standards of 150 micrograms per cubic meter.

The project lies in an area classified as "attainment/unclassified" with respect to the federal standard for $PM_{2.5}$.

During construction, the project would generate air pollutants. Exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, and various other activities. The impacts of these activities would vary each day as construction progresses. Occasional dust and odors at some residences close to the right-of-way could cause occasional annoyance and complaints.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation measures are required for long-term operational air quality effects.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF "Air Pollution Control" and Section 10 "Dust Control," require the contractor to comply with the Kern County Air Pollution Control District's rules, ordinances, and regulations.

With respect to diesel emissions during construction, Caltrans would take all minimization measures that are listed in Caltrans Standard Specifications to reduce particulate emissions.

2.2.6 Noise and Vibration

Regulatory Setting

The National Environmental Policy Act of 1969 and the California Environmental Quality Act provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between the National Environmental Policy Act and the California Environmental Quality Act.

California Environmental Quality Act

The California Environmental Quality Act requires a strictly no-build versus build analysis to assess whether a proposed project will have a noise impact. If a proposed

project is determined to have a significant noise impact under the California Environmental Quality Act, then the act dictates that mitigation measures must be incorporated into the project unless such measures are not feasible.

National Environmental Policy Act and 23 Code of Federal Regulations 772

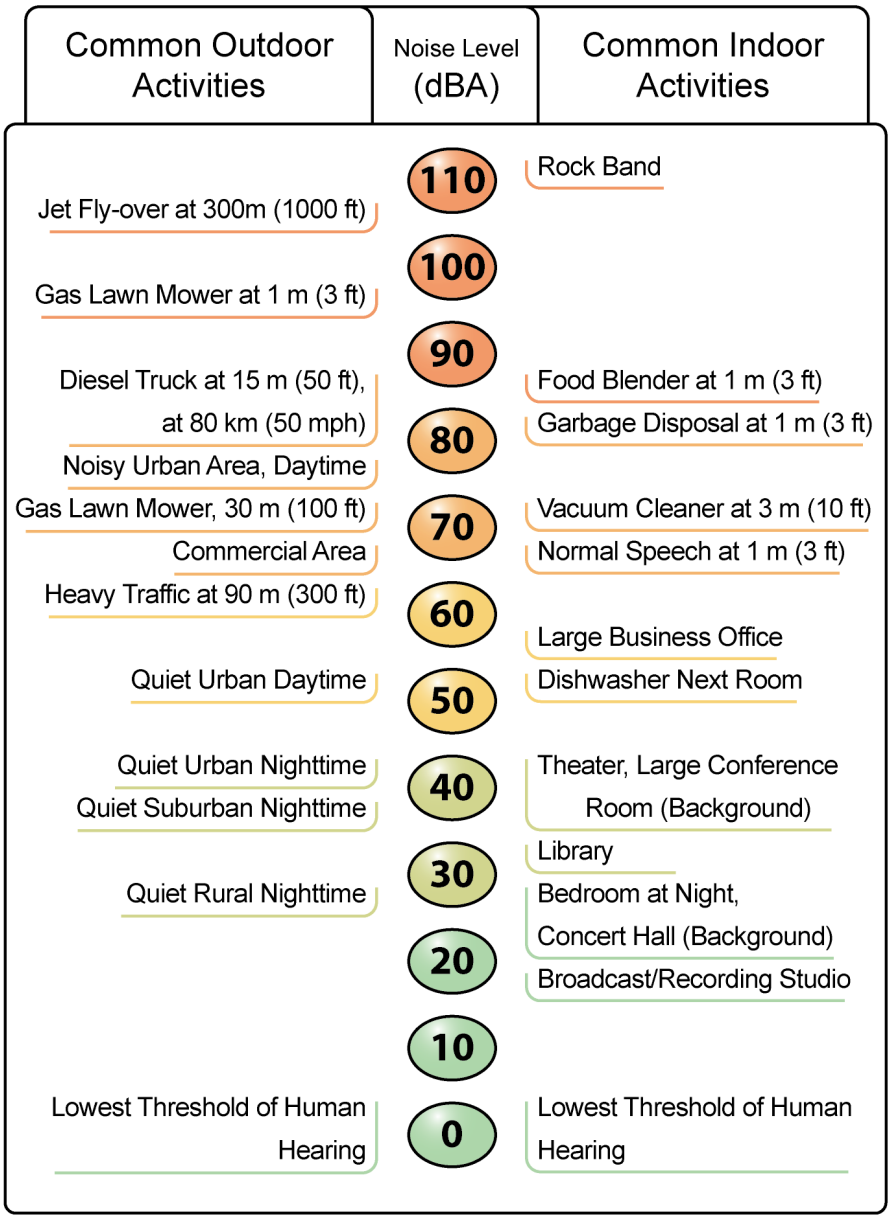
For highway transportation projects with Federal Highway Administration involvement, (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and the associated implementing regulations (23 Code of Federal Regulations 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations contain noise abatement criteria that are used to determine when a noise impact would occur. The noise abatement criteria differ depending on the type of land use under analysis. For example, the criterion for residences (67 decibels) is lower than the criterion for commercial areas (72 decibels). Table 2.4 lists the noise abatement criteria for use in the National Environmental Policy Act and 23 Code of Federal Regulations 772 analysis and Table 2.5 shows the noise levels of typical activities.

Table 2.4 Activity Categories and Noise Abatement Criteria

Activity Category	Noise Abatement Criteria, A-weighted Noise Level, Average Decibels Over 1 Hour	Description of Activities
A	57 Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67 Exterior	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals
C	72 Exterior	Developed lands, properties, or activities not included in Categories A or B above
D	--	Undeveloped lands
E	52 Interior	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums

Source: Caltrans Traffic Noise Analysis Manual, 1998
A-weighted decibels are adjusted to approximate the way humans perceive sound

Table 2.5 Typical Noise Levels



In accordance with Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998*, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12-decibel or more increase) or when the future noise level with the

project approaches or exceeds the noise abatement criteria. Approaching the noise abatement criteria is defined as coming within 1 decibel of the criteria.

If it is determined that the project would have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

Caltrans' *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 5-decibel reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include: residents' acceptance, the absolute noise level, build versus existing noise, environmental impacts of abatement, public and local agencies' input, newly constructed development versus development pre-dating 1978, and the cost per benefited residence.

Affected Environment

Caltrans prepared a Noise Study Report, dated April 27, 2005, for this project.

Land use in the project area consists mainly of vacant land with some scattered residences and businesses. Three areas in the project limits were studied for potential noise impacts. Area 1 was the Armistead parcel located between post miles 53.6 and 53.8. Area 2 was a small cluster of homes located between Freeman Junction and the Inyokern turnoff (post miles 59.1 and 59.2). Area 3 was a small cluster of homes located north of Inyokern turnoff and south of Indian Wells (between post miles 61.1 and 61.2).

A total of 15 Category B noise receptors (see Category B in Table 2.4) were identified within the project limits. See the noise receptor maps in Appendix K.

Environmental Consequences

Projected traffic noise was evaluated for the year 2028 for each build alternative. Traffic volumes counted during ambient noise monitoring were used (along with measured noise levels) to determine the existing noise levels. The existing conditions were then compared to the modeled results to determine whether a substantial noise increase would occur in the future due to any of the proposed project alternatives.

The forecast model indicated that none of the alternatives would substantially affect the residences in the project limits. For Alternatives 1, 2, and 3, the only properties close enough to be affected by noise would be properties that would be acquired before construction.

Table 2.6 shows the results of the noise impact analysis and whether noise barriers (soundwalls) would be reasonable and feasible.

Table 2.6 Noise Impact Analysis

Area	Receptor # and Location	Existing Hourly Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Hourly Noise Level with Project Alts. 1 and 3/Alt. 2 (dBA)	Soundwalls Reasonable and Feasible
1	1A—Residences and businesses on west side of State Route 14	50.0	57.7	57.5 / 57.5	No
	1B—Residences and businesses on west side of State Route 14	58.1	65.7	70.7 / 64.3	Property would be acquired
	1C—Residences and businesses on west side of State Route 14	52.1	59.8	59.4 / 59.4	No
	1D—Residences and businesses on west side of State Route 14	55.2	63.0	66.5 / 62.1	Property would be acquired
	1E—Residences and businesses on west side of State Route 14	55.2	62.9	65.6 / 62.0	Property would be acquired
	1F—Residences and businesses on west side of State Route 14	52.7	60.3	59.7 / 59.7	No

Area	Receptor # and Location	Existing Noise Level (dBA)	Predicted Noise Level without Project (dBA)	Predicted Hourly Noise Level with Project Alts. 1 and 2/Alt. 3 (dBA)	Soundwalls Reasonable and Feasible
2	2A—Residence on west side of State Route 14	57.9	62.2	60.3 / 74.7	Property would be acquired
	2B—Residence on west side of State Route 14	56.5	60.8	59.3 / 71.3	Property would be acquired
	2C—Residence on west side of State Route 14	52.0	56.4	55.7 / 59.6	No
	2D—Residence on west side of State Route 14	43.4	47.9	47.8 / 48.7	No
	2E—Residence on west side of State Route 14	43.4	47.9	47.8 / 48.5	No
Area	**Receptor # and Location**	**Existing Noise Level (dBA)**	**Predicted Noise Level without Project (dBA)**	**Predicted Hourly Noise Level with Project Alts. 1 and 2/Alt. 3 (dBA)**	**Soundwalls Reasonable and Feasible**
3	3A—Residence on west side of State Route 14	46.1	53.6	52.7 / 55.6	No
	3B—Residence on west side of State Route 14	52.7	60.1	58.6 / 70.4	Property would be acquired
	3C—Residence on west side of State Route 14	41.9	49.4	48.7 / 50.4	No
	3D—Residence on east side of State Route 14	37.4	44.9	45.4 / 44.5	No

Avoidance, Minimization, and/or Noise Abatement

Because noise impacts are not substantial (an increase of 12 dBA or more, or reaching 67 dBA), no noise barriers (soundwalls) would be required for the proposed project.

2.3 Biological Environment

2.3.1 Natural Communities

Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Threatened and Endangered Species, Section 2.3.4.

Affected Environment

A Natural Environment Study for this project was completed on August 18, 2006.

The biological study area runs the length of the project limits and is mostly 585 feet wide. In several areas, the biological study area was wider (up to 1,475 feet) to accommodate either frontage roads or the intersections of State Route 14 with State Route 178 West and State Route 178 East.

The project lies in the western portion of Mojave Desert in the Indian Wells Valley. The area ranges in elevation from 3,000 to 3,300 feet. The biological study area is an alluvial fan that slopes at about 1% grade into the Indian Wells Valley, with soil consisting of coarse and fine sandy alluvial deposits. The area has been moderately disturbed by off-highway vehicle trails and residential development.

Biological communities in the biological study area consist of Mojave creosote bush scrub and desert wash.

Mojave Creosote Bush Scrub

This habitat is dominated by creosote bush (*Larrea tridentata*), burro-weed (*Ambrosia dumosa*), goldenbush (*Ericameria cooperi),* winterfat (*Krascheninnikovia lanata*), and cheesebush (*Hymenoclea salsola*), which are widely spaced, usually with bare ground between. Common annual species included checker fiddleneck (*Amsinckia tessellata var. tessellata*), red-stemmed filaree (*Erodium cicutarium*),

bromes (*Bromus* sp.), and schismus (*Schismus* sp.). In addition, Joshua trees (*Yucca brevifolia*) were scattered throughout the biological study area.

This habitat is an alluvial fan with coarse-textured soils. Mojave creosote bush scrub habitat makes up roughly 99% of the biological study area.

Desert Wash

This habitat is dominated by scale-broom (*Lepidospartum squamatum*), Mormon tea (*Ephedra nevadensis*), and spiny senna (*Senna armata*). Common annual species included red-stemmed filaree, schismus, and blazing star (*Mentzelia albicaulis*).

Desert wash habitat makes up less than 1% of the biological study area.

Environmental Consequences

The biological study area consists of Mojave creosote bush scrub habitat and desert wash habitat. These natural communities would be directly affected by the construction-related activities of any selected build alternative. See Table 2.7 for habitat acres affected.

Avoidance, Minimization, and/or Mitigation Measures

The Mojave creosote bush scrub within the biological study area is suitable habitat for state and federally listed special-status animal species (the desert tortoise and Mohave ground squirrel). Under any build alternative, Caltrans and the Federal Highway Administration would acquire and preserve habitat at a 3-to-1 ratio. See Table 2.8.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 United States Code 1344) is the main law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used, based on presence of: hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three must be present, under normal

circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, and Caltrans as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The California Department of Fish and Game's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the Army Corps of Engineers may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Boards also issue water quality certifications in compliance with

Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

Numerous desert washes and outlets cross State Route 14 and are tributary to China Dry Lake: Little Dixie Wash, Sage Canyon Wash, Freeman Gulch Wash, and two unnamed washes that cross the highway. No wetlands lie in the project area.

Environmental Consequences

The project would build a new Freeman Gulch Bridge (#50-14R) and would widen or replace the existing Freeman Gulch Bridge (#50-14, which would become #50-14L).

All build alternatives would upgrade the existing drainage crossings to reinforced concrete boxes. The larger drainage boxes would improve the flow of water and allow ample room for machinery during routine maintenance.

Avoidance, Minimization, and/or Mitigation Measures

On March 29, 2006, Caltrans submitted a letter to the U.S. Army Corps of Engineers requesting a determination for jurisdiction of washes in the biological study area. On April 11, 2006, the U.S. Army Corps of Engineers responded to Caltrans' request and stated that the Corps would not take jurisdiction over the washes (see Appendix F). Therefore, a permit pursuant to Section 404 of the Clean Water Act would not be necessary.

Additionally, per Section 401 of the Clean Water Act, Caltrans would coordinate with the Regional Water Quality Control Board to determine if a Section 401 Water Quality certification would be warranted for the project.

On February 2, 2005, Caltrans performed a field review of the proposed project site with Mr. Clarence Mayott, a Department of Fish and Game biologist. The focus of the review was to survey various desert washes that cross the proposed project limits. It was confirmed that Caltrans would also submit a notification to the California Department of Fish and Game for a Streambed Alteration Agreement per Section 1602 of the California Fish and Game Code for the washes that cross the project. The following washes would be included in the notification: Little Dixie Wash, Freeman Gulch Wash, Bowman Wash and two unnamed washes that cross the highway just north of the State Route 178 East intersection.

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and the California Department of Fish and Game share regulatory responsibility for the protection of special-status plant species. "Special-status" species are protected because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see the Threatened and Endangered Species, Section 2.3.4, in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including California Department of Fish and Game species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at United States Code 16, Section 1531, et. seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code, Section 2050, et. seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Sections 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

A Natural Environment Study for this project was completed August 18, 2006.

Plant species surveys were conducted throughout spring 2003 from March 17 to May 15, with an additional survey day on April 5, 2004. Floristic surveys were timed to coincide with the spring flowering periods for sensitive plants that have the potential to occur in the biological study area. Flowering periods were confirmed as listed in the California Native Plant Society's Inventory of Rare and Endangered Plants of California. The biological study area was revisited in spring 2004 for additional botanical surveys for the following sensitive species: Red Rock tarplant (*Deinandra arida*), Red Rock poppy (*Eschscholzia minutiflora ssp. twisselmannii*), creamy

blazing star (*Mentzelia tridentata*), and Charlotte's phacelia (*Phacelia nashiana*). See Appendix E for a list of the sensitive species within the biological study area.

Mojave creosote scrub is the habitat for these plants, except for Red Rock tarplant, which occurs in clay soil of washes within Mojave creosote scrub. Each of these plants has known occurrences less than 3 miles south to southeast of the project limits. A small number of Joshua trees (*Yucca brevifolia*) were also noted in the biological study area.

Environmental Consequences

Although Red Rock tarplant, Red Rock poppy, creamy blazing star, and Charlotte's phacelia were not identified during surveys, suitable potential habitat for these species would be affected by construction-related activities. The potential impact to Red Rock Poppy, creamy blazing star, and Charlotte's phacelia would be the loss of Mojave creosote scrub habitat that would be permanently disturbed by construction-related activities. Red Rock tarplant could be directly affected by the loss of desert wash habitat. The project would also affect a small number of Joshua trees.

Avoidance, Minimization, and/or Mitigation Measures

Plant seed may be scattered for erosion control or revegetation purposes in sections of the project. To avoid the introduction of non-native plants, any reseeding efforts would use only seeds collected or propagated from native plants that occur in the area of the project.

Joshua trees would be subject to salvage requirements as defined by the regulations of the California Department of Food and Agriculture, Division 23, California Desert Native Plant code (Sections 80001–80121, pages 1017–1022); however, these regulations do not apply to public agencies such as Caltrans "when acting in the performance of its obligation to provide service to the public" (Section 80117(c)). Caltrans proposes to transplant salvageable Joshua trees affected by the construction project. Transplant locations would be within the Caltrans project right-of-way.

Compensatory mitigation for impacts to desert tortoise and Mohave ground squirrel habitat (see Section 2.3.5 Threatened and Endangered Species) may consist of similar potentially suitable habitat that may benefit Red Rock tarplant, Red Rock poppy, creamy blazing star, and Charlotte's phacelia.

2.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Fisheries, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5. All other special-status animal species are discussed here, including California Department of Fish and Game species of special concern, and the U.S. Fish and Wildlife Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601–1603 of the Fish and Game Code
- Sections 4150 and 4152 of the Fish and Game Code

In addition to state and federal laws regulating impacts to wildlife, there are often local (city or county) regulations that need to be considered when developing projects. If work is being done on federal land (Bureau of Land Management or Forest Service, for example), then the regulations, policies, and Habitat Conservation Plans of those agencies are followed.

Affected Environment

A Natural Environment Study was completed August 18, 2006 for this project.

According to the sensitive species lists obtained from the Ventura Field Office of the U.S. Fish and Wildlife Service (Appendix D) and the California Department of Fish and Game Natural Diversity Database list, a total of 15 special-status animal species have the potential to occur in the project area.

Only five special-status animal species are likely to occur in the biological study area: the western burrowing owl (*Athene cunicularia hypugaea*), prairie falcon (*Falco mexicanus*), Le Conte's thrasher (*Toxostoma lecontei*), desert tortoise (*Gopherus agassizi*), and Mohave ground squirrel (*Spermophilus mohavensis*). See Appendix E. The desert tortoise and Mohave ground squirrel are discussed in Section 2.3.5 Threatened and Endangered Species.

Burrowing owls nest in the ground, usually in abandoned small mammal burrows. They are most active at dusk and dawn, hunting for large insects and small mammals. Although the western burrowing owl was not seen during the biological surveys, there are known occurrences less than two miles from the project site. Potential suitable nesting and foraging habitat exists for this species in the biological study area.

The prairie falcon was not seen during surveys. The biological study area would provide good foraging habitat. Potential nesting habitat for prairie falcon, however, does not exist within the biological study area. According to the Natural Diversity Database, there are known occurrences less than two miles from the project site.

The Le Conte's thrasher was not seen during biological surveys, but there are known California Natural Diversity Database occurrences less than a mile from the project site, and suitable desert scrub habitat is present in the project area.

Environmental Consequences

Direct effects (as defined by the National Environmental Policy Act) to the western burrowing owl might include the displacement of the owl to another area or the loss of suitable nesting and foraging habitat. Indirect effects might include the long-term degradation of the quality of foraging habitat. Potential impacts for the western burrowing owl would be similar to the habitat impacts for the desert tortoise and Mohave ground squirrel habitat (see Section 2.3.5). Project impacts, both direct and indirect, may affect the western burrowing owl but are not likely to result in listing for the species.

Potential impacts for the prairie falcon would include loss of suitable foraging habitat. Habitat impacts for the prairie falcon would be similar to the habitat impacts for the desert tortoise and Mohave ground squirrel (see Section 2.3.5). Project impacts may directly affect the prairie falcon but are not likely to result in listing for the species.

The Le Conte's thrasher was not seen at the project site, so it is difficult to assess potential impacts. But, potential direct effects (as defined by the National Environmental Policy Act) to this species may be defined as the loss of suitable habitat due to construction-related activities. Habitat impacts for the Le Conte's thrasher would be similar to the habitat impacts for desert tortoise and Mohave ground squirrel habitat (see Section 2.3.5). Indirect effects to the Le Conte's thrasher are not expected to occur as a result of this project. Project impacts may directly affect the Le Conte's thrasher but are not likely to result in listing for the species.

Avoidance, Minimization, and/or Mitigation Measures

Western Burrowing Owl

Although the western burrowing owl was not seen in the project area, Migratory Bird Special Provisions would be included in the construction contract. These provisions would require pre-construction surveys for nesting migratory birds, including burrowing owl, so that, if the bird is seen, measures can be taken to avoid impacts.

The compensation mitigation for the desert tortoise and Mohave ground squirrel habitat would provide suitable habitat to benefit the western burrowing owl.

Prairie Falcon

The compensation mitigation for the desert tortoise and Mohave ground squirrel habitat would provide suitable foraging habitat to benefit the prairie falcon (see Table 2.8).

Le Conte's Thrasher

The compensation mitigation for the desert tortoise and Mohave ground squirrel habitat may consist of similar potentially suitable habitat to benefit the Le Conte's thrasher (see Table 2.8).

2.3.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 United States Code, Section 1531, et seq. See also 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend.

Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, are required to consult with the U.S. Fish and Wildlife Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats.

The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California Endangered Species Act allows for take incidental to otherwise lawful development projects; for these actions, an incidental take permit is issued by the California Department of Fish and Game.

For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Caltrans prepared a Biological Assessment, dated April 4, 2007, for this project.

Desert Tortoise

The desert tortoise is a large, plant-eating reptile that lives throughout the Mojave and Colorado deserts from below sea level to 4,000 feet or higher. Desert tortoises are found in creosote bush scrub, saltbush scrub, and Joshua tree woodland. They eat

annual forbs and grasses. They are most active during the spring and early summer when annual plants are most common. Additional activity occurs during warmer fall months and occasionally after summer rainstorms. Desert tortoises spend the remainder of the year in burrows, escaping the extreme conditions of the desert.

The desert tortoise population is declining due to off-road vehicle use, competition with livestock, disease, predation, deliberate killing, and general forms of harassment such as collection. The species is also experiencing habitat loss and degradation.

A live male desert tortoise was observed in Freeman Gulch Wash about 3,000 feet from the State Route 14 crossing. In addition to a live tortoise, substantial evidence of tortoise presence was observed in the biological study area.

Mohave Ground Squirrel

The Mohave ground squirrel is a small squirrel, reaching a total length of 9 inches. It is uniformly grayish-brown on top, with a lighter underside, and a distinctive white eye ring. The squirrel eats a variety of green vegetation, seeds, and fruits. It also forages on the ground or in shrubs and Joshua trees. The squirrel uses a variety of habitat types within several vegetation communities dominated by creosote bush, shadscale, or Joshua tree. It is active above ground in the spring and early summer. Emergence dates vary from March to June, depending on elevation. Squirrels begin underground dormancy in July or August.

The Mohave ground squirrel occurs in the Western Mojave Desert from southwestern Inyo County, south through eastern Kern County, northeastern San Bernardino County, and northeastern Los Angeles County. It has one of the smallest geographic ranges of the 28 species of ground squirrel. Within the range, there have been four core areas supporting widespread populations that have been identified by Mohave ground squirrel researchers. The proposed project bisects one of these core areas.

The Mohave ground squirrel was not seen during biological surveys, but there are known occurrences surrounding the project site as well as one known occurrence in the biological study area at the intersection of State Route 14 and State Route 178 West. The project limits are within one of four core populations for this species. The Mojave creosote scrub habitat in the biological study area is suitable for the species.

Environmental Consequences

Desert Tortoise

As defined by the National Environmental Policy Act, direct effects to the desert tortoise would include construction-related activities that could cause a desert tortoise injury or mortality and cause the loss or destruction of habitat. The desert tortoise could potentially be injured or killed if crushed by a vehicle or other equipment during construction activities. Collapsed or excavated burrows could kill or injure live tortoises or eggs. Predation on desert tortoises may be increased in the work area if common predators, such as common ravens (*Corvus corax*) are attracted by human activity. Uninformed workers could also move, collect, or vandalize desert tortoises that they may encounter when in work areas. Improper handling of desert tortoises by humans could spread organisms that could cause upper-respiratory tract disease.

As a result of this widening project, desert tortoise habitat would be permanently lost and replaced with pavement, concrete, or continuous grading activities. Within the project area, the desert tortoise shares the same habitat as the Mohave ground squirrel; therefore, the impacts to habitat would be the same for both special-status animal species. Table 2.7 shows the acres of affected habitat for both the desert tortoise and Mohave ground squirrel for each build alternative.

Informal consultation with the U.S. Fish and Wildlife Service occurred in March 2003 and August 2004. Informal consultation with the California Department of Fish and Game also occurred in August 2004. See Chapter 3 for details of these coordination efforts.

Caltrans conducted Section 7 formal consultation with the U.S. Fish and Wildlife Service for the desert tortoise. The U.S. Fish and Wildlife Service issued a Biological Opinion (#1-8-07-F-48), dated August 3, 2007, based on the April 2007 Biological Assessment and additional consultation as outlined in Chapter 3.

The U.S. Fish and Wildlife Service determined that the permanent loss of approximately 413 acres of suitable desert tortoise habitat would not substantially reduce the reproduction, numbers, or distribution of the species in the wild, because large amounts of habitat remain available in the project area. The habitat that has the potential to be lost or disturbed is adjacent to a heavily used highway where the quality of habitat is less suitable.

After review of the current status of the desert tortoise, the biological study area outlined by Caltrans, the potential effects of the proposed project, and the cumulative effects, it is the Biological Opinion of the U.S. Fish and Wildlife Service that the proposed project is not likely to jeopardize the continued existence of the desert tortoise. This conclusion was reached primarily because the proposed project would affect a very limited number of desert tortoises, if any, and a relatively minor amount of suitable habitat that is distributed parallel to the existing State Route 14. Furthermore, Caltrans would implement the numerous operational procedures described below to avoid, reduce, and minimize the potential adverse effects of the proposed project on the desert tortoise in addition to the acquisition of 1,240 acres of suitable habitat in an area that is considered important for the recovery of the species.

Mohave Ground Squirrel

As defined by the National Environmental Policy Act, direct effects to the Mohave ground squirrel would include construction-related activities that could cause a squirrel injury or mortality and cause the loss or destruction of habitat. The Mohave ground squirrel could potentially be injured or killed if crushed by equipment during construction activities. Collapsed or excavated burrows could kill or injure squirrels.

As a result of this widening project, Mohave ground squirrel habitat would be permanently lost and replaced with pavement, concrete, or continuous grading activities. Since the Mohave ground squirrel shares the same habitat with the desert tortoise, the amount of affected habitat would be the same for both animals. Table 2.7 shows the acres of affected habitat for the Mohave ground squirrel and desert tortoise for each build alternative.

Table 2.7 Acres of Affected Desert Tortoise and Mohave Ground Squirrel Habitat

Build Alternative	Acres of Impact
1	413.41
2	422.04
3	415.83

Avoidance, Minimization, and/or Mitigation Measures

Caltrans would compensate for direct impacts to the desert tortoise and Mohave ground squirrel as well as their habitat by preserving habitat in areas that are

important for the recovery of the desert tortoise and Mohave ground squirrel populations.

Caltrans also would replace each acre of lost habitat with 3 acres of quality habitat at a location approved by the U.S. Fish and Wildlife Service and California Department of Fish and Game. Total compensation acreages for each build alternative are shown in Table 2.8.

Table 2.8 Compensatory Mitigation for Impacts to the Desert Tortoise and Mohave Ground Squirrel

Build Alternative	Acres of Impact	Mitigation Ratio	Total Acres of Compensation
1	413.41	3:1	1,240
2	422.04	3:1	1,266
3	415.83	3:1	1,248

Desert Tortoise

With the selection of Alternative 1 as the Preferred Alternative, Caltrans would replace the acreage of lost habitat with 1,240 acres of quality habitat for the desert tortoise at a location approved by the U.S. Fish and Wildlife Service.

Caltrans would also install permanent desert tortoise fencing around the perimeter of the project area before the start of onsite construction as well as on both sides of the new expressway after construction as described below. The U.S. Fish and Wildlife Service determined that the fencing would be effective in preventing tortoises from entering the roadway and being struck by vehicles. However, because the general vicinity supports a low density of desert tortoises, the U.S. Fish and Wildlife Service expects the fencing's conservation benefit to the tortoise would be minimal.

In addition, worker education programs and well-defined operational procedures would be implemented to avoid the take of desert tortoises and minimize loss of habitat during construction activities.

- All persons employed on the construction project would receive instruction regarding the desert tortoise before performing onsite work. Instruction would include the importance of the desert tortoise to the environment, recovery efforts for the desert tortoise, implications of the Endangered Species Act, and the

importance of following all terms and conditions provided in the U.S. Fish and Wildlife Service Biological Opinion and Department of Fish and Game 2081 Incidental Take Permit. Employees would be notified that they are not authorized to handle or otherwise move desert tortoises encountered on the project site.

- Only biologists authorized by U.S. Fish and Wildlife Service and Department of Fish and Game would handle a desert tortoise. When handling a desert tortoise, the authorized biologist(s) would follow the guidelines established in the *"Guidelines for Handling Desert Tortoise During Construction Projects."*

- Permanent or temporary desert tortoise fencing would be installed around the perimeter of the project area before the start of onsite construction. Installation of the desert tortoise fencing would be monitored by a qualified biologist to ensure that tortoises are not killed or injured during this activity. The permanent fencing would be constructed together with the Caltrans right-of-way fence along the new Caltrans right-of-way. Temporary desert tortoise fencing would be installed in areas of construction that are beyond the perimeter of the Caltrans right-of-way or in areas where permanent right-of-way fencing would be constructed later due to construction staging. After installation, the tortoise fence would be regularly inspected to ensure its integrity. Cross-country travel for construction purposes outside areas of desert tortoise fencing would be prohibited.

- The entire project area would be surveyed for desert tortoises by the qualified biologist after installation of the tortoise fencing. Following the procedures and precautions outlined in the Desert Tortoise Council 1999 Guidelines, all desert tortoise pallets and burrows within the survey areas would be examined and excavated by hand, either by or under the direct supervision of an authorized biologist, and collapsed to prevent re-entry.

- Take of desert tortoises, through injury or death, found within the project area would be reduced through the removal of these animals to undisturbed areas beyond the construction site. When handling or translocating desert tortoises, the authorized biologist would follow the guidelines established in Desert Tortoise Council 1999 Guidelines. Desert tortoises would be relocated within their own territory, but outside of the construction area, where they may be familiar with alternate burrows. If no burrows were available, artificial burrows would be created following the Desert Tortoise Council's 1999 Guidelines.

- A qualified biologist(s) would be present during all initial brushing or grading activities within the project area. During project implementation, all workers would inform the qualified biologist if a desert tortoise were found within or near project areas. All work in the vicinity of the desert tortoise that could injure or kill the animal would stop and the desert tortoise would be observed until it is moved from harm's way by the authorized biologist.

- Workers would inspect for desert tortoises under vehicles and equipment before such equipment is moved. If a desert tortoise is present, the worker will wait for the desert tortoise to move from under the vehicle. The authorized biologist would also be contacted to remove the desert tortoise.

- All food-related trash items would be placed in a container that precludes entry by wildlife, such as common ravens and coyotes. Food-related trash shall be regularly removed from the construction site and disposed of at an approved refuse disposal site. Workers shall refrain from deliberate feeding of wildlife.

- The qualified biologist(s) would maintain a record of all desert tortoises encountered during project activities in the project area.

Mohave Ground Squirrel

Worker education programs would be implemented to avoid the take of Mohave ground squirrels and minimize loss of habitat during construction activities. If a Mohave ground squirrel were found within or near the project areas, a qualified biologist would be notified immediately. All work in the vicinity of the Mohave ground squirrel that could injure or kill the animal would cease until the Mohave ground squirrel is moved from harm's way by the authorized biologist or it moves from the construction area on its own accord. If the authorized biologist identifies a Mohave ground squirrel using burrows within the project area, the California Department of Fish and Game would be consulted regarding the need for a trapping effort to relocate these animals to a safe site. The construction contractor would also comply with the requirements specified by the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

2.4 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources within a project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

Section 15130 of the California Environmental Quality Act Guidelines describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under the California Environmental Quality Act, can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality regulations.

Affected Environment

Four projects are currently being developed for this portion of State Route 14. The first project, an accelerated project currently in the construction phase, involves the conversion of State Route 14 into a four-lane divided expressway from Mojave to the existing four-lane roadway 10 miles north of Mojave. This project is known as the "North Mojave Four-Lane." The project limits are from post miles 16.2 to 26.6.

The second project, known as the "South Redrock Rehabilitation," is located on State Route 14 just south of Red Rock State Park from post miles 35.5 to 37.1. This project

involves widening the existing 68-foot four-lane all-paved section to an 82-foot all-paved section.

The third project also on State Route 14 is called the "Little Dixie Wash Rehabilitation." This project lies between post miles 46.2 and 50.8 and is within the first five miles of the Freeman Gulch Four-Lane project. It involves an asphalt concrete overlay and shoulder widening.

The fourth project, known as the "Inyokern Four-Lane," is located on U.S. Highway 395, just east of State Route 14. This project lies between post miles 14.8 and 23.0 and would convert 8.2 miles of existing two-lane conventional highway into four-lane expressway.

Environmental Consequences

The Freeman Gulch Four-Lane project and the other proposed Caltrans projects nearby are not expected to cause measurable cumulative effects to any natural resources in the area. The Inyokern Four-Lane project on U.S. Highway 395 may affect some of the special-status species discussed in this document. However, mitigation measures would be taken for each of the potential impacts, and a biological opinion would be obtained from the U.S. Fish and Wildlife Service as appropriate.

2.5 Climate Change under the California Environmental Quality Act

Regulatory Setting

While climate change has been a concern since at least 1988 as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas emissions reduction and climate change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493, California launched an innovative and proactive approach to dealing with greenhouse gas emissions and climate change at the state level. Assembly Bill 1493 requires the Air Resources Board to develop and implement regulations to reduce automobile and light truck greenhouse gas emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year. Greenhouse gases related to human activity include carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1,1,1,2-tetrafluoroethane), and HFC-152a (difluoroethane).

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this executive order is to reduce California's greenhouse gas emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020, and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32, the Global Warming Solutions Act of 2006. Assembly Bill 32 sets the same overall greenhouse gas emissions reduction goals while further mandating that the Air Resources Board create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06, signed on October 17, 2006, further directs state agencies to begin implementing Assembly Bill 32, including the recommendations made by the state's Climate Action Team.

Climate change and greenhouse gas reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing greenhouse gas emissions reductions and climate change.

Affected Environment

According to *Recommendations by the Association of Environmental Professionals on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing greenhouse gas emissions reduction and climate change. Recognizing that 98 percent of California's greenhouse gas emissions are from the burning of fossil fuels and 40 percent of all human-made greenhouse gas emissions are from transportation, Caltrans has created and is implementing the Climate Action Program at Caltrans (December 2006).

One of the main strategies in Caltrans' Climate Action Program to reduce greenhouse gas emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 miles per hour. Relieving congestion by enhancing operations and improving travel times in high

congestion travel corridors will lead to an overall reduction in greenhouse gas emissions.

Environmental Consequences

Each of the three build alternatives proposes to convert the existing two-lane conventional highway into a four-lane, divided, controlled-access expressway with four 12-foot lanes, 5-foot inside and 10-foot outside paved shoulders, and a widened median. With an additional through lane in each direction of travel, peak traffic congestion and queuing would be eased. Due to the improved traffic flow, carbon dioxide emissions should be reduced despite an increase over time in vehicles using the highway.

Caltrans recognizes the concern that carbon dioxide emissions raise for climate change. However, modeling and gauging the impacts associated with an increase in greenhouse gas emission levels, including carbon dioxide, at the project level is not currently possible. No federal, state, or regional regulatory agency has provided methodology or criteria for greenhouse gas emissions and climate change impact analysis. Therefore, Caltrans is unable to provide a scientific- or regulatory-based conclusion regarding whether the project's contribution to climate change is cumulatively considerable.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans continues to be actively involved on the Governor's Climate Action Team as the Air Resources Board works to implement Assembly Bills 1493 and 32. As part of the Climate Action Program at Caltrans (December 2006), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, transit-oriented communities, and high-density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars and light and heavy-duty trucks. However, it is important to note that control of fuel economy standards is held by the United States Environmental Protection Agency and the Air Resources Board. Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California Davis.

Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings and interagency coordination meetings. This chapter summarizes Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

As part of the scoping process, Caltrans environmental technical staff gathered information for the project through record searches, drive-by surveys, and walk-the-area surveys. Based on these early results and observations, a Preliminary Environmental Analysis Report was completed on April 20, 2001. The report presented an overview of potential environmental issues and constraints that might be encountered if the proposed project were to move forward with construction.

A project development team meeting was conducted July 18, 2002 in the Ridgecrest City Hall Council Chambers. Attendees included Caltrans District 6 and 9 staff from project management, design engineering, environmental planning, right-of-way, construction, maintenance and operations, hydraulics, and visual landscaping. Also invited to the meeting were representatives from the Kern Council of Governments, Kern County Roads Department, City of Ridgecrest, City of Mammoth, Inyo County Local Transportation Commission, and Mono County Local Transportation Commission. Topics discussed at the meeting included the project scope, resources, design issues, right-of-way estimates, and the status of early environmental studies.

In August 2002, a Caltrans archaeologist met with the Ridgecrest Chapter of The Knights of Columbus to discuss the Father Crowley memorial.

On January 14, 2003, a Caltrans biologist requested a species list from the U.S. Fish and Wildlife Service office in Ventura, California.

On March 6, 2003, a Caltrans biologist talked with Mr. Tim Thomas, a biologist with the U.S. Fish and Wildlife Service, about modifying the survey protocol for desert tortoise by only surveying the biological study area and not conducting a "zone of

influence." Mr. Thomas approved of the change as long as evidence of a tortoise was observed within the biological study area.

On April 18, 2003, a Caltrans biologist received a species list for the proposed project from the U.S. Fish and Wildlife Service office in Ventura.

On August 5, 2004, Virginia VonBerg, a Caltrans biologist, held a meeting with Mr. Clarence Mayott, a Department of Fish and Game biologist, regarding project scope, biological survey results, anticipated project impacts and proposed plan of mitigation. Caltrans proposed standard minimization measures, compensation for affected desert tortoise and Mohave ground squirrel habitat at a 3:1 ratio, and temporary tortoise fencing. Caltrans agreed to submit an application for a Section 2081 Incidental Take Permit for the potential take of listed species and an application for a Section 1602 Agreement for impacts to desert washes.

On August 10, 2004, Virginia VonBerg, Caltrans biologist, met with U.S. Fish and Wildlife Service biologists Robert McMorran, Doug Threloff, Bridgett Clayton, and Brian Croft to discuss the project scope, biological survey results, anticipated project impacts and the proposed plan of mitigation. Caltrans proposed standard minimization measures, compensation for affected tortoise habitat at a 3:1 ratio, and temporary tortoise fencing. The U.S. Fish and Wildlife Service agreed on the mitigation, but requested permanent tortoise fencing if possible and that the Biological Assessment be combined with the Biological Assessment for the Inyokern Four-Lane project. (The Inyokern Four-Lane project is another widening project that Caltrans is proposing to construct on U.S. Highway 395 near the town of Ridgecrest.)

On August 23, 2004, the Federal Highway Administration approved Caltrans' request to combine the Biological Assessment for the State Route 14 Freeman Gulch Four-Lane project with the Biological Assessment for the U.S. Highway 395 Inyokern Four-Lane project.

In December 2004, Caltrans District 6 staff conducted a Value Analysis Study. The study focused on alternatives that would improve operations, maintain or improve safety, reduce costs if possible, and satisfy the local stakeholders.

On February 2, 2005, Caltrans performed a field review of the proposed project site with Mr. Clarence Mayott, a Department of Fish and Game biologist. The focus of the review was to survey various desert washes that cross the proposed project limits. It was confirmed that Caltrans would submit a notification to the Department of Fish

and Game for a Section 1602 Streambed Alteration Agreement for Freeman Gulch, Little Dixie Wash, Bowman Wash and two unnamed washes that cross the highway just north of the State Route 178 East intersection.

On February 8, 2006, Caltrans submitted the Historic Property Survey Report to the State Historic Preservation Officer for review and concurrence.

On March 24, 2006, the State Historic Preservation Officer concurred with Caltrans' determinations on the National Register of Historic Places eligibility of several cultural resources in the proposed project's Area of Potential Effects.

On March 29, 2006, Caltrans submitted a letter to the U.S. Army Corps of Engineers requesting the Corps' determination for jurisdiction of the following washes in the biological study area: Little Dixie Wash, Freeman Gulch Wash, Bowman Wash, and two unnamed washes that cross the highway north of the State Route 178 East intersection.

On April 11, 2006, the U.S. Army Corps of Engineers responded to Caltrans' request for a determination and stated that the Corps would not take jurisdiction over the washes. Therefore, a permit pursuant to Section 404 of the Clean Water Act would not be necessary.

On May 18, 2006, a Caltrans archaeologist and staff from environmental planning and design engineering met with the Ridgecrest Chapter of The Knights of Columbus to discuss the Father Crowley memorial.

On February 7, 2007, Caltrans staff from environmental planning and design organized a series of meetings with members of the public. The meetings were based on comments received during the public circulation of the Draft Environmental Document. In the first meeting, Caltrans met with Vice Mayor Thomas Wiknich. In the second meeting, Caltrans met with Mr. Dick Stokes, Ridgecrest Chapter of the Knights of Columbus; David A. Matthews, resident of Ridgecrest; and Sophia Anne Merk, resident of Ridgecrest. In the third meeting, Caltrans met with the Rooney family, owners of property adjacent to State Route 14 within the project limits. The meetings gave Caltrans the opportunity to personally meet the interested parties and present the proposed project by displaying maps, explaining the alternatives, and answering all questions.

On March 26, 2007, a Caltrans archaeologist sent a Notification of Finding of No Adverse Effect with Standard Conditions to the State Historic Preservation Officer and the Federal Highway Administration.

On April 18, 2007, the Biological Assessment was sent to the U.S. Fish and Wildlife Service for the Biological Opinion.

On June 20, 2007, Caltrans biology staff had a teleconference with Mr. Ray Bransfield of U.S. Fish and Wildlife Service to answer his questions about the Biological Assessment. An electronic copy of the Biological Assessment was also forwarded to Mr. Bransfield at his request.

On July 12, 2007, Caltrans biology staff telephoned Mr. Ray Bransfield to inform him that the desert tortoise fencing proposed for this project had been discussed with California Department Fish and Game during informal consultation.

On July 23, 2007, Caltrans biology staff attempted to contact Mr. Ray Bransfield to obtain the status on the Biological Opinion since the July 12, 2007 telephone conversation.

On July 27, 2007, Caltrans biology staff telephoned Mr. Ray Bransfield to discuss the anticipated completion date of the Biological Opinion. Caltrans set a deadline date of August 10, 2007 for completion of the Biological Opinion.

On July 30, 2007, Mr. Ray Bransfield contacted Caltrans biology staff in regards to the biological study area described in the Biological Assessment.

On July 31, 2007, Caltrans biology staff responded to Mr. Ray Bransfield's request for a map defining the 413.41 acres of permanent impacts to desert tortoise habitat.

On August 1, 2007, the U.S. Fish and Wildlife Service sent Caltrans biology staff an electronic copy of the draft Biological Opinion for review and comment.

On August 3, 2007, Caltrans biology staff received the Biological Opinion from the U.S. Fish and Wildlife Service.

Chapter 4 List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Heather Baker, Associate Environmental Planner (Natural Sciences). B.A., Natural Sciences/Biology, California State University, Fresno; 9 years biology experience. Contribution: Coordinated with the Federal Highway Administration, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

Michael Calvillo, Associate Environmental Planner. B.S., Biology, California State University, Fresno; 7 years environmental planning experience. Contribution: Wrote the Initial Study/Environmental Assessment and coordinated the environmental process for the project.

Catherine Crandall, Graphic Designer II. Fine Art studies at State University of New York, Oneonta and Louisiana State University; 18 years graphics experience. Contribution: Prepared graphics.

Mike Donahue, Senior Environmental Planner. B.A., Geography, California State University, Fresno; 32 years experience in urban and environmental planning. Contribution: Environmental Unit Supervisor.

Ken Doran, Engineering Geologist. M.S., Geology, California State University, Fresno; B.S., Geology, California State University, Fresno; 7 years hazardous waste assessment experience. Contribution: Conducted an update on the hazardous waste studies and wrote the technical report.

Sarah Gassner, Associate Environmental Planner. M.A., Cultural Resources Management, Sonoma State University; B.A., Anthropology, California State University, Fresno; 11 years archaeology/cultural resources experience. Contribution: Conducted supplemental archaeological surveys; wrote the Supplemental Historic Property Survey Report; prepared the Effects Package and Memorandum of Agreement; and assisted with the preparation of the cultural resources mapping for the Area of Potential Effects.

Andrew Gillem, Right-of-Way Agent. B.A., Environmental Studies, Sonoma State University. Contribution: Obtained permits to enter for environmental studies.

Susan Greenwood, Associate Environmental Planner. B.S., Environmental Health Science, California State University, Fresno; 17 years environmental health, hazardous waste, and hazardous material management experience. Contribution: Conducted an update on the hazardous waste studies and wrote the technical report.

Steve M. Lee, Project Engineer. B.S., Civil Engineering, California State University, Fresno; 10 years experience in land development and 6 years experience in civil engineering pertaining to hydraulics, construction, and design. Contribution: Wrote the Location Hydraulic Study.

R. Steve Miller, District Landscape Architect. Bachelors of Landscape Architecture (1975), University of Idaho in Moscow; registered to practice in California since 1987. Contribution: Wrote the Visual Impact Assessment.

Tom Mills, Professionally Qualified Staff – Principal Investigator Prehistoric Archaeology. M.A., Anthropology, California State University, Sacramento; 10 years experience in California and Great Basin Archaeology. Contribution: Project coordinator for Cultural Resources for Phase I and Phase II; coordinated with Far Western Anthropological Research Group; conducted archaeological surveys; wrote the Historic Property Survey Report; consulted with the Federal Highway Administration and the State Historic Preservation Officer under the guidelines of Section 106 of the National Historic Preservation Act; and conducted The Knights of Columbus (Ridgecrest, CA) coordination.

Frank Momen, Project Manager, PMP. B.S., Civil Engineering, California State University, Fresno; 20 years of experience. Contribution: Project Development.

Mathew Palmer, Environmental Planner. M.A., Organizational Management, University of Phoenix, Fresno; B.S., Environmental Science, California State University, Fresno; 6 years environmental technical and environmental planning experience. Contribution: Conducted initial hazardous waste studies and wrote the technical summary.

Cliff Raley, Civil Engineer/Professional Geologist. M.S., Geology, California State University, Fresno; B.A., Geology, California State University, Fresno; 21

years experience in environmental sciences. Contribution: Wrote the technical report for noise impacts.

Lora Rischer, Associate Right-of-Way Agent. B.S., Sports Medicine, California State University, Sacramento; 16 years experience in Right-of-Way. Contribution: Wrote the Draft Relocation Impact Report.

Itzia Rivera, Environmental Planner. B.A., Environmental Studies, California State University, Sacramento; 1 year of environmental planning experience. Contribution: Assisted with the Initial Study/Environmental Assessment and the coordination of the environmental process.

Patricia Scrivner, Transportation Engineer. B.S., Civil Engineering, California State University, Fresno; 10 years experience in transportation design. Contribution: Participated on the design of the alignments for the project's alternatives.

Scott Shaver, Senior Transportation Engineer. M.S., Civil Engineering, California State University, Fresno; 19 years experience in civil engineering. Contribution: Project Development Unit Supervisor.

Richard Stewart, Engineering Geologist P.G. B.S., Geology, California State University, Fresno; 18 years hazardous waste and water quality experience. Contribution: Wrote the technical reports for air quality, water quality, and paleontology.

Roger Valverde, Graphic Designer II. Certificate of Multimedia, Mount San Jacinto and coursework at California State University, Fresno; 24 years visual design and public participation experience. Contribution: Prepared graphics.

Juergen Vespermann, Chief, Southern Sierra Environmental Analysis Branch. Civil Engineering Degree, Fachhochschule Muenster, Germany; 16 years transportation planning/environmental planning experience. Contribution: Environmental Unit Supervisor.

Virginia VonBerg, Associate Environmental Planner (Natural Sciences). B.S., Biology, California State University, Fresno; 8 years biology experience. Contribution: Wrote the Natural Environment Study and the Biological Assessment; performed biological field surveys; and coordinated with the Federal Highway Administration, U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this Initial Study/Environmental Assessment. Documentation of “No Impact” determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	X	☐	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	X
AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	X
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	X
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	X
d) Expose sensitive receptors to substantial pollutant concentration?	☐	☐	☐	X
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	X
BIOLOGICAL RESOURCES - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	X	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	X	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	X	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	X	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	X	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	X
GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	X
ii) Strong seismic ground shaking?	☐	☐	☐	X
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	X
iv) Landslides?	☐	☐	☐	X
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	X	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	X
HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	X
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	X
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	X
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	X
HYDROLOGY AND WATER QUALITY - Would the project:				

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	☐	☐	☐	X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite?	☐	☐	X	☐
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	X
f) Otherwise substantially degrade water quality?	☐	☐	☐	X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	X
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	X
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	X

LAND USE AND PLANNING - Would the project:

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	X
b) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	X
MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	X
NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
POPULATION AND HOUSING - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
PUBLIC SERVICES -				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	X
Police protection?	☐	☐	☐	X
Schools?	☐	☐	☐	X
Parks?	☐	☐	☐	X
Other public facilities?	☐	☐	☐	X
RECREATION -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incomplete uses (e.g., farm equipment)?	☐	☐	☐	X
e) Result in inadequate emergency access?	☐	☐	☐	X
f) Result in inadequate parking capacity?	☐	☐	☐	X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	X
UTILITY AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	X	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	X

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
e) Result in determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

MANDATORY FINDINGS OF SIGNIFICANCE -

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, or cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086

Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

"Caltrans improves mobility across California"

Appendix C State Historic Preservation Officer Concurrence Letter

STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
calshpo@ohp.parks.ca.gov
www.ohp.parks.ca.gov

CAL TRANS DIST.
2006 MAR 30 PM 1:47

24 March 2006

In Reply Refer To
FHWA060214A

Tom Dayak
Senior Environmental Planner
Eastern Sierra Environmental Branch
California Department of Transportation, District 9
500 South Main Street
Bishop, California 93514

RE: HISTORIC PROPERTY SURVEY REPORT FOR THE FREEMAN GULCH FOUR-LANE PROJECT, KERN COUNTY, CALIFORNIA; 06-KER-14, P.M. 45.9/62.3 [INITIATION OF SECTION 106 CONSULTATION ON THE **FREEMAN GULCH FOUR-LANE PROJECT** ON STATE ROUTE 14, KERN COUNTY, CALIFORNIA]

Dear Mr. Dayak,

This letter is a response to the California Department of Transportation's (Caltrans) submission, on behalf of the Federal Highway Administration, of the February 2006 *Historic Property Survey Report, Freeman Gulch Four-Lane Project* (HPSR). Caltrans' submission and my comment on it here are made pursuant to the 1 January 2004 *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as It Pertains to the Administration of the Federal-aid Highway Program in California* (PA).

Caltrans' letter of 8 February 2006 requests that I concur, pursuant to stipulation VIII.C.5 of the PA, with its determinations on the National Register of Historic Places (National Register) eligibility of a number of properties in the subject undertaking's area of potential effects. Tom Mills of your staff agreed, on 21 March 2006, to an extension of the above stipulation's 30-day review period in an email to Mike McGuirt of my staff.

On the basis of my review of the HPSR, I concur with Caltrans' determinations that

CA-KER-6204 **CA-KER-6205**

are eligible for inclusion in the National Register under Criterion D, because the sites have yielded and are likely to yield further information on the previously undocumented prehistoric use of desert cottontail rabbits (*Sylvilagus auduboni*) in the Indian Wells Valley region of the Mojave Desert. The sites likely retain additional information on the chronology and the character of the local use of this resource.

I further concur with Caltrans' determinations that

CA-KER-6197 **CA-KER-6198**
CA-KER-6199 **CA-KER-6200**
CA-KER-6202 **CA-KER-6203**
CA-KER-6206 **CA-KER-6208**
CA-KER-6209 **CA-KER-6210**
CA-KER-6211 **CA-KER-6212**
CA-KER-6214 **CA-KER-6215**
CA-KER-6218H **CA-KER-6700**

CA-KER-6701
APN 064-173-07
APN 341-060-11

P-15-10641
APN 341-020-28

are *not* eligible for inclusion in the National Register.

And I concur with Caltrans determinations that

CA-KER-6207 **CA-KER-6213**

are *not* eligible for inclusion in the National Register either as individual properties or as elements of the Last Chance Canyon Archaeological District (National Register File No. 72000225, 1972).

"Hart's Place," APN 096-170-10, is found in the October 2002 *SR 14 Improvements, Kern County, Historic Resources Evaluation Report*, and appears to be in the undertaking's APE. Similarly, P-15-10652, the "Unknown Structure," is found in the January 2006 *Archaeological Evaluation of 23 Cultural Resources for the Freeman Gulch Four-Lane Project, State Route 14 (PM 45.9/62.3), in Northeastern Kern County, California* (Archaeological Evaluation Report) Why are determinations for neither property's National Register eligibility included in Caltrans' 8 February letter?

As I conclude my comment here, I would like to note a couple of concerns that I have with the manner in which Caltrans chose to evaluate the archaeological sites in the undertaking's APE. One concern relates to the use of the Office of Historic Preservation's California Archaeological Resource Identification and Data Acquisition Program (CARIDAP). Chapter 5 of the Archaeological Evaluation Report provides the results of what Caltrans portrays as a study done under CARIDAP. Caltrans' excavation samples for the sites ultimately found to qualify for CARIDAP treatment routinely and significantly exceed the minimum number of Subsurface Exploratory Excavation Units that the program recommends. The table below (table 1) is a simple summary of the subject CARIDAP eligible sites and evidences the implementation of a field methodology that exceeds the program's minimum excavation recommendations by 1200 to 2400 percent.

TABLE 1. CARIDAP EXCAVATION ON THE FREEMAN GULCH FOUR-LANE PROJECT.

TRINOMIAL	SITE AREA (m^2), SITE ASSEMBLAGE	CARIDAP EXCAVATION AREA, ACTUAL EXCAVATION AREA (m^2)
CA-KER-6197	3268, 22 flakes, 2 edge-modified flakes, 1 core	1.5, 20.0
CA-KER-6202	399, 5 flakes	0.5, 12.0
CA-KER-6203	448, 1 retouched flake	0.5, 10.0
CA-KER-6206	200, 2–3 flakes	0.5, 12.0
CA-KER-6208	180, 4 flakes, 1 biface fragment	0.5, 6.0
CA-KER-6209	176, 1 flake	0.5, 10.0
CA-KER-6211	990, 16 flakes	1.0, 12.0

I would not agree, absent substantive arguments for special field conditions, that the above samples well reflect the program's recommendations. I encourage Caltrans to re-consider the manner in which it implements CARIDAP, or, alternately, request that the agency disassociate the future use of such samples with the implementation of the CARIDAP program. I believe that the use of such samples undercuts the program's effort to promote more efficient management of our heritage resources.

I have a further concern about the size of Caltrans' excavation samples for the phase II National Register evaluations of the archaeological sites in the undertaking's APE. The use of what appears to be inappropriately large samples does not appear to have been limited to the excavation of the CARIDAP sites. The non-CARIDAP sites appear to have been subject to significantly more excavation than was necessary to evidence determinations that particular sites are not eligible for inclusion in the National

Register. Table 2 below provides some basic data on the investigations on an arbitrary sample of the non-CARIDAP sites.

TABLE 2. PHASE II EXCAVATIONS ON THE FREEMAN GULCH FOUR-LANE PROJECT.

TRINOMIAL	SITE AREA (M^2)	TOTAL SURFACE ARTIFACTS, M^2/ SURFACE ARTIFACT*	EXCAVATION VOLUME (M^3)	TOTAL SUBSURFACE ARTIFACTS, SUBSURFACE ARTIFACTS/M^3*
CA-KER-6198	4559	35, 130.3	3.4	11, 3.2
CA-KER-6199	5810	20, 290.5	3.2	0, 0
CA-KER-6200	15,375	57, 269.7	7.7	15, 1.9
CA-KER-6204	3286	26, 126.4	4.8	120, 25.0
CA-KER-6205	1080	22, 49.1	4.2	322, 76.7
CA-KER-6207	1302	40, 32.6	3.4	39, 11.4
CA-KER-6210	728	21, 34.7	2.5	23, 9.2
CA-KER-6212	399	14, 28.5	3.8	60, 15.7
CA-KER-6213	3003	233, 12.9	7.6	130, 17.1
CA-KER-6214	7208	13, 554.5	5.3	5, 0.9
CA-KER-6701	1554	28, 55.5	1.9	4, 2.1

* Surface and subsurface artifact totals from site report text, not site report tables, and include "heat-affected rock" or "HAR," and bone

National Register eligible properties

I am unclear why Caltrans found it necessary to excavate the volume that it did on many of the non-CARIDAP sites to reach the conclusion that the sites are not eligible for the National Register. The more extreme examples of this apparent investigatory pattern include CA-KER-6199, -6200, and -6214 (table 2 above) where 3.2 to 7.7 m^3 of site deposits were excavated despite meager artifact yields of 0.0 to 1.9 artifacts per m^3. Absent substantive justifications to the contrary, I do not see that the repetitive hand excavation of archaeological deposits with such low artifact densities is a particularly efficient or cost effective manner of conducting phase II evaluations. I think it would be more reasonable to consider making use of archaeological site evaluation methods other than hand excavation on sites where artifacts densities are so low. As one example, Caltrans could have considered lowering the threshold of the excavation volume on the non-CARIDAP sites, and then taken a percentage of the savings that the lower threshold would provide to fund geophysical surveys of those same sites in an attempt to more efficiently locate the types of features that the agency came upon at CA-KER-6204 and -6205. Alternately, Caltrans could have set a lower excavation volume threshold, and, on the basis of preliminary field assessments of a particular site's ineligibility for the National Register, produced broad, lateral exposures of that site's deposits, using mechanical means, to try to identify archaeological features or architectural ruins. Ultimately, I would like to encourage Caltrans to foster more dynamic investigatory processes that are responsive to fresh field information, make use of a broader range of field methods, and, importantly, provide for more cost effective use of pubic compliance funds.

Please direct any questions or concerns that you may have to Project Review Unit archaeologist Mike McGuirt at 916.653.8920 or at mmcgu@parks.ca.gov.

Sincerely,

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:mdm

Appendix D U.S. Fish and Wildlife Service Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

In Reply Refer To: PAS 267.273.340

April 18, 2003

Paul Sturm, Regional Biologist
Department of Transportation
2015 East Shields, Suite A-100
Fresno, California 93726

Subject: Species List for Freeman Gulch Widening Project, U.S. Geological Survey Quadrangles: Saltdale NW, Freeman Junction, and Owens Peak, Kern County, California

Dear Mr. Sturm:

This letter is in response to your request dated January 14, 2003, and received by us on January 16, 2003, for information on federally listed, proposed, or candidate species which may be present in the following 7.5-minute U.S. Geological Survey quadrangle maps: Saltdale NW, Freeman Junction, and Owens Peak in Kern County, California. The California Department of Transportation, with funding from the Federal Highway Administration (FHWA), proposes to convert Route 14 from a two-lane highway into a four-lane divided, controlled access expressway between post miles 45.9 and 62.3. The post miles correspond to the portion of the highway from 0.8 miles north of Redrock Inyokern Road to 1.7 miles north of the junction with Route 178.

The enclosed list of species fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Act. The FHWA, as the lead agency for the project, has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a construction project[1/] which may require an environmental impact statement, the FHWA has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the FHWA determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal

[1/] "Construction project" means any major Federal action which significantly affects the quality of the human environment designed primarily to result in the building of structures such as dams, buildings, roads, pipelines, and channels. This includes Federal actions such as permits, grants, licenses, or other forms of Federal authorizations or approval which may result in construction.

consultation. During this review process, the FHWA may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

Candidate species are those species presently under review by the Service for consideration for federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office. Candidate species are not known to occur in your proposed project area at the present time.

The take of candidate species is not prohibited by the Act, however, we encourage you to consider their conservation in your planning process in the event they are listed prior to project completion. For information on other species of concern that may occur in the project area, the Service recommends that you review information in the California Department of Fish and Game's (CDFG) Natural Diversity Database and that you contact CDFG at (916)324-3812.

If you have any questions, please contact Douglas Threloff of my staff at (805) 644-1766.

Sincerely,

Judy Hohman

Judy Hohman
Division Chief
Mojave/Great Basin Desert

Enclosure

ENDANGERED, THREATENED, AND PROPOSED SPECIES
THAT MAY OCCUR WITHIN THE
SALTDALE NW, FREEMAN JUNCTION, AND OWENS PEAK QUADRANGLES
KERN COUNTY, CALIFORNIA

Common Name	Scientific Name	Status
Desert Tortoise	Gopherus agassizii	T
Hoover's woolly-star	Eriastrum hooveri	PD
Kelso Creek monkeyflower	Mimulus shevockii	PE

Key:

T	Threatened
PD	Proposed for delisting
PE	Proposed endangered

U.S. Fish & Wildlife Service - Ventura Fish & Wildlife Office

Species Lists

Federal Endangered and Threatened Species that may be affected by projects in Kern County

(5 Species)

Key

Type	Common Name	Scientific Name	Status	Date Listed	CH	CH Date	Occurs In
Bird	CALIFORNIA CONDOR	Gymnogyps californianus	Endangered	11-Mar-67	Yes	22-Sep-77	KRN, LA, MNT, SLO, SBA
Bird	LEAST BELL'S VIREO	Vireo bellii pusillus	Endangered	02-May-86	Yes	02-Feb-94	INY, KRN, LA, SBA, SBD, SBE, SCZ, SLO, VEN
Bird	SOUTHWESTERN WILLOW FLYCATCHER	Empidonax traillii extimus	Endangered	27-Feb-95	Yes	22-Jul-97	INY, KHN, LA, SBA, SBD, LA
Bird	YELLOW-BILLED CUCKOO	Coccyzus americanus	Candidate	25-Jul-01	No		INY, KRN, LA, MNO, MNT, SBA, SBD, SBE, SCZ, SLO, VEN
Reptile	DESERT TORTOISE	Gopherus agassizzii	Threatened	02-Apr-90	Yes	08-Feb-94	INY, KRN, LA, SBD

UNOFFICIAL

2493 Portola Road, Suite B
Ventura, CA 93003
office (805) 644-1766 | fax (805) 644-3958
or to contact the WebMaster by e-mail, click here.

FIRSTGOV.gov

Appendix E Biological Study Area Sensitive Species List

Scientific Name	Common Name	Status	Specific Habitat Present/ Absent	Species Present/ Absent	Rationale for Species Presence/Absence Finding
Reptiles:					
Gopherus agassizi	Desert tortoise	FT, ST	P	P	Desert tortoise was seen during surveys of the biological study area.
Birds:					
Athene cunicularia hypugaea	Western burrowing owl	FSC, SSC	P	P	There are confirmed occurrences less than 2 miles from the project area, and suitable habitat exists in the biological study area.
Falco mexicanus	Prairie falcon	SSC	P	P	There are confirmed occurrences within 2 miles of the project area, and suitable habitat exists in the biological study area.
Toxostoma lecontei	Le Conte's thrasher	SSC	P	P	There are confirmed sightings within 1 mile of the project area, and suitable habitat exists in the biological study area.
Mammals:					
Spermophilus mohavensis	Mohave ground squirrel	FSC, ST	P	P	There are confirmed sightings within the project area, and suitable habitat exists in the biological study area.

Scientific Name	Common Name	Status	Specific Habitat Present/ Absent	Species Present/ Absent	Rationale for Species Presence/Absence Finding
Plants:					
Deinandra arida	Red Rock tarplant	CNPS, SR	P	A	This species blooms from April to November and would have been visible during surveys if it were present. This species was not seen during botanical surveys.
Eschscholzia minutiflora ssp. twisselmannii	Red Rock poppy	CNPS	P	A	This species blooms from March to May and would have been visible during surveys if it were present. This species was not seen during botanical surveys.
Mentzelia tridentata	Creamy blazing star	CNPS	P	A	This species blooms from April to May and would have been visible during surveys if it were present. This species was not seen during botanical surveys.
Phacelia nashiana	Charlotte's phacelia	CNPS	P	A	This species blooms from March to May and would have been visible during surveys if it were present. This species was not seen during botanical surveys.

A	No further work is needed
FE	Federally Endangered
FT	Federally Threatened
FC	Federal Candidate for Listing
FSC	Federal Species of Concern
P	General habitat is present and species may be present
SE	State Endangered
ST	State Threatened
SR	State Rare
SSC	State Species of Special Concern
CNPS	California Native Plant Society listing

Appendix F U.S. Army Corps of Engineers Letter

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
VENTURA FIELD OFFICE
2151 ALESSANDRO DRIVE, SUITE 110
VENTURA, CALIFORNIA 93001

April 11, 2006

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

California Department of Transportation
Environmental Planning Branch
Attention: Virginia VonBerg
2015 East Shields Avenue, Suite 100
Fresno California 93726-5428

Dear Ms VonBerg:

Reference is made to your letter (No. 2006-00918-AOA) dated March 29, 2006 for a Department of the Army Permit to widen State Route 14 and 178, including expansion of several existing culverts and bridges, in Little Dixie, Freeman, Bowman and other unnamed desert washes that are tributary to China Drylake west of Ridgecrest, Kern County California

Based on the information furnished in your letter and the recent Solid Waste Agency of Northern Cooke County Supreme Court decision (No 99-1178), we have determined that the above ephemeral tributaries to China Drylake are isolated, non-navigable drainage features that do not support substantial interstate commerce As a result, your proposed road widening project does not discharge dredged or fill material into a water of the United States or an adjacent wetland Therefore, the project is not subject to our jurisdiction under Section 404 of the Clean Water Act and a Section 404 permit is not required from our office

Furthermore, you are hereby advised that the Corps of Engineers has established an Administrative Appeal Process for jurisdictional determinations which is fully described at 33 CFR Part 331 The Administrative Appeal Process for jurisdictional determinations is diagrammed on the enclosed Appendix C. If you decide not to accept this approved jurisdictional determination and wish to provide new information, please send the information to this office. If you do not supply additional information you may appeal this approved jurisdictional determination by completing the attached "Notification of Administrative Appeal Options and Process and Request for Appeal" form and submitting it directly to the Appeal Review Officer at the address provided on the form

Please be aware that our determination does not preclude the need to comply with Section 13260 of the California Water Code (Porter/Cologne) and we recommend that you contact the California Regional Water Quality Control Board to insure compliance with the above regulations Furthermore, our determination does not obviate the need to obtain other Federal, state or local authorizations required by law

I am forwarding copies of this letter to: California State Water Resources Control Board, 1001 I Street, Sacramento, California 95814, Attention: Mr Oscar Balaguer, Chief, Water Quality Certification California Regional Water Quality Control Board, Region 6, Lahontan Region, Attention: Mr Harold J. Singer 2501 Lake Tahoe Blvd , South Lake Tahoe, California 96150

If you have any questions, please contact Aaron O. Allen, Ph.D of my staff at (805) 585-2148

Sincerely,

Antal Szijj
Acting Chief, North Coast Section
Regulatory Branch

Appendix G Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

The California Department of Transportation (Caltrans) would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Residential replacement dwellings would be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees would be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex, or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance would also include supplying information concerning federal- and state-assisted housing programs, and any other known services being offered by public and private agencies in the area.

Residential Relocation Payments Program

To request a copy of the Relocation Assistance for Residential Relocation brochure or any brochures referenced in the sections immediately below, please contact the following individual (please specify the project name: Freeman Gulch Four-Lane project):

Michael Calvillo, Associate Environment Planner
Southern Sierra Environmental Analysis Branch
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726

Or access the brochure via the Internet at the following links (the first link listed is for the English version of the brochure; the second link listed is for the Spanish version):

http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf
http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf

For a brochure pertaining to residential displacement of mobile homes, access the following (first link is for the English version; second link is for the Spanish version):

http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf
http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf

The Business and Farm Relocation Assistance Program

For the Relocation Assistance for Businesses and/or Farms brochure, access the following (first link is for the English version; second link is for the Spanish version):

http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf
http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf

Additional Information

No relocation payment received would be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project would not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments would not be required to move unless at least one comparable "decent, safe, and sanitary" replacement residence, open to all persons regardless of race, color, religion, sex, or national origin, is available or has been made available to them by the state.

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Caltrans' Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available from Caltrans' Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans' laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services.

Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans' relocation programs.

Important Notice

To avoid loss of possible benefits, no individual, family, business, farm, or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California
Department of Transportation, District 9
500 South Main Street
Bishop, CA 93514

Appendix H Minimization and/or Mitigation Summary

Relocations

All land acquisitions are subject to the Uniform Relocation Act. Caltrans must comply with all requirements of the act. Appendix G of this report discusses these acquisition and compensation measures.

Funding would be available to relocate or re-establish any home or business affected by the project. The Relocation Payment Program would help eligible residential occupants by paying certain costs and expenses necessary for, or incidental to, the purchase or rental of replacement housing and actual reasonable moving expenses to a new location within 50 miles of the displacement property.

Utilities

Before construction, utilities affected by the project would be relocated in coordination with utility companies.

In addition, State Route 14 and adjoining roads would remain accessible during construction to avoid delays in emergency service. Caltrans' efforts to inform and coordinate with emergency and other public services would minimize disruption.

Traffic and Transportation

During construction, a traffic management plan would help reduce traffic delays, congestion, and accidents. Standard Caltrans construction practices include providing information on roadway conditions, using portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and a traffic contingency plan for unforeseen circumstances and emergencies.

The Caltrans Public Affairs Office would keep the local media informed of construction progress and information pertaining to delays, closures, and major changes in traffic patterns. The resident engineer would provide this information through both the Caltrans District 6 Transportation Management Center and the Caltrans District 9 Traffic Branch.

Visual/Aesthetics

1. Slope grades would be constructed to facilitate planting, erosion control, and ease of maintenance.

2. The selection of materials and methods for the revegetation project is critical for erosion control and restoring the visual quality. This project would not be irrigated. It is critical that compacted grades on slopes and in the median be cultivated before the installation of duff and seed. This would enable the deep rooting of new vegetation, allowing it to survive the summer extremes of drought. The seed mix, application rates, and planting methods should be determined by or approved in cooperation with a Caltrans Landscape Architecture representative.

3. To preserve the native seed stock and natural chemical compounds, it is critical to collect and store topsoil/duff for placement on disturbed areas before replanting.

4. Institute a plan to minimize the removal of existing vegetation wherever feasible.

5. A split alignment between the northbound and southbound lanes is recommended for the northern limits of the project due to the high visibility of the horizon line of the slope and the view of the cut and fill slopes from the communities in the valley. This would reduce the visual impact of this section of the project and blend it into the existing landform.

Cultural Resources

If Alternative 1 or 3 is chosen, archaeological sites CA-KER-6204 and CA-KER-6205 would be avoided through designation of Environmentally Sensitive Areas as described in Attachment 5 of the Section 106 Programmatic Agreement, which requires their protection with signing, staking, and/or fencing and construction monitoring.

If Alternative 2 is chosen, a Memorandum of Agreement, along with a Treatment Plan, would be prepared. The adverse effect to CA-KER-6204 and CA-KER-6205 would be mitigated by a data recovery program, establishment of Environmental Sensitive Areas around the remaining portions of the site and preparation of a technical report. The Treatment Plan would be circulated to the Native American community, the Federal Highway Administration and the State Historic Preservation Officer for review and comment before final environmental document approval.

As outlined in the Treatment Plan, additional cultural work would be necessary before construction. In addition:

- Recorded portions of the site outside the Area of Direct Impact would be designated as Environmentally Sensitive Areas during construction.
- Archaeological monitoring, including Native American monitoring, would also be done during construction to insure against unanticipated effects on the sites.

With the selection of Alternative 1 as the Preferred Alternative, archaeological sites CA-KER-6204 and CA-KER-6205 would be avoided through designation of Environmentally Sensitive Areas as described in Attachment 5 of the Section 106 Programmatic Agreement, which requires their protection with signing, staking, and/or fencing and construction monitoring.

If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the county coroner contacted. Per Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, which would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Sarah Gassner, Central Region Archaeologist, so that she may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

All Alternatives

On May 18, 2006, Caltrans met with the Ridgecrest Chapter of The Knights of Columbus regarding the Father John J. Crowley memorial. The chapter agreed to search for nearby suitable private land where the memorial could be relocated.

Water Quality

A Storm Water Pollution Prevention Plan would be prepared by the contractor and implemented during construction to the satisfaction of the resident engineer. The Storm Water Pollution Prevention Plan would identify the sources of sediment and other pollutants that affect the quality of storm water discharges. The plan would also

describe and ensure the implementation of Best Management Practices to reduce or eliminate sediment and other pollutants in storm water as well as non-storm water discharges.

Caltrans and the contractor for the project would address all potential water quality impacts that may occur during construction.

Paleontology

The implementation of the Paleontological Mitigation Plan would be in compliance with Caltrans paleontological mitigation guidelines and with Society of Vertebrate Paleontology standard measures for mitigation of construction-related impacts on paleontological resources and for a museum's acceptance of a mitigation program fossil collection.

The following measures would be conducted by the Paleontological Contractor selected by Caltrans to implement the Paleontological Mitigation Plan:

A qualified Principal Paleontologist would be retained prior to the start of construction to implement the Paleontological Mitigation Plan. The Paleontologist would have a Master of Science or Ph.D. degree in paleontology or geology and would be familiar with paleontological salvage or mitigation procedures and techniques. If required by Caltrans, all geologic work would be performed under the supervision of a California Professional Geologist.

The Principal Paleontologist would develop a written storage agreement with a recognized museum repository regarding the permanent storage and maintenance of any fossil remains recovered under the Paleontological Mitigation Plan.

Prior to the start of earth-moving activities, the Principal Paleontologist and/or their Field Supervisor, along with one or more Field Technicians, would conduct a comprehensive preconstruction field survey of those portions of the project area that are underlain by previously undisturbed strata in the older alluvium.

The Principal Paleontologist and/or their Field Supervisor would be present at a preconstruction meeting to consult with Grading and Excavation Contractors. During the meeting, the Paleontologist and/or the Field Supervisor would conduct an employee environmental awareness training session for all personnel who would be involved in earth-moving activities.

Initially, a Paleontological Monitor, under the direction of the Principal Paleontologist or the Field Supervisor, would be onsite full-time during excavation between post miles 45.9 and 52.0 and at Freeman Gulch to inspect new exposures in the larger cuts created by earth-moving activities in areas underlain by older alluvium, unless the results of the preconstruction field survey indicate that only part-time monitoring is warranted. North of post mile 52.0, where only smaller cuts would be created, monitoring would be conducted on a spot-check basis. If too few or no fossils remains have been recovered after 50 percent of these earth-moving activities have been completed, monitoring could be reduced from full to part-time or from part-time to spot-checking, or, if spot-checking already is in effect, suspended. Monitoring in areas underlain by alluvium would be conducted on a half-time basis only when and where such activities have reached a depth of five feet below the current grade.

If fossil remains were discovered, the Paleontological Monitor would recover them. If necessary, earth-moving activities at the fossil locality would be halted or temporarily diverted around the locality to allow for complete recovery of the remains. The Monitor would be equipped to allow for the timely recovery of such remains. If necessary to reduce the potential for delay of earth-moving activities, additional personnel would be assigned to the recovery of an unusually large or productive fossil occurrence.

Bulk samples of fine-grained sediment would be recovered from fossilferous or potentially fossilferous strata and processed to allow for the recovery of microvertebrate remains. The total weight of these samples would not exceed 6,000 pounds from any rock unit.

Fossil remains recovered under the Paleontological Mitigation Plan would be prepared to the point of identification, identified by knowledgeable paleontologists, curated, and cataloged in compliance with designated museum repository requirements.

The entire fossil collection (along with associated specimen data and corresponding geologic and geographic locality data and copies of pertinent field notes, photos, and maps) would be transferred to the repository for permanent storage and maintenance. Associated specimen data and corresponding geologic and geographic site data would be archived at the repository and, along with the fossil specimens, would be made available to paleontologists for study.

A final report of findings that summarizes the results of the work conducted under the Paleontological Mitigation Plan would be prepared by the Principal Paleontologist and, if required, the Professional Geologist. A copy of the report would be filed at the museum repository.

Hazardous Waste

The appropriate Standard Special Provisions would be developed for this project to ensure that hazardous waste/substances discovered during construction activities would be handled appropriately.

The water well on the Hart's Place property should be properly abandoned, and the debris should be properly evaluated before disposal.

The existing underground storage tanks on the former Miley's Station property would have to be properly abandoned before construction activities. It is Caltrans' policy not to purchase sites contaminated with hazardous waste. The site should be assessed before purchase. Also, due to the open pits/shafts on the property, caution should be used during all construction activities.

The wood posts on the Freeman Gulch Bridge, if removed, should be treated as hazardous waste and properly disposed of in accordance with current regulations.

Air Quality

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF "Air Pollution Control" and Section 10 "Dust Control," require the contractor to comply with the Kern County Air Pollution Control District's rules, ordinances, and regulations.

With respect to diesel emissions during construction, Caltrans would take all minimization measures that are listed in Caltrans Standard Specifications to reduce particulate emissions.

Biology

Wetlands

Caltrans will comply with conditions of the Section 1602 Streambed Alteration Agreement and Section 401 water quality certification if required.

Plant Species

Plant seed may be scattered for erosion control or revegetation purposes in sections of the project. To avoid the introduction of non-native plants, any reseeding efforts would use only seeds collected or propagated from native plants that occur in the area of the project.

Caltrans proposes to transplant salvageable Joshua trees affected by the construction project. Transplant locations would be within the Caltrans project right-of-way.

Animal Species—Burrowing Owl

Migratory Bird Special Provisions would be included in the construction contract. These provisions would require pre-construction surveys for nesting migratory birds, including burrowing owl, so that, if the bird is seen, measures can be taken to avoid impacts.

Project Compensatory Mitigation

Caltrans would compensate for direct impacts to desert tortoise and Mohave ground squirrel and their habitats by preserving habitat in areas that are important for the recovery of the desert tortoise and Mohave ground squirrel populations.

Caltrans would replace each acre of lost habitat with 3 acres of quality habitat at a location approved by the U.S. Fish and Wildlife Service and California Department of Fish and Game. Total compensation acreages for each of the build alternatives are presented in the following table.

Compensatory Mitigation for Impacts to the Desert Tortoise and Mohave Ground Squirrel

Build Alternative	Acres of Impact	Mitigation Ratio	Total Acres of Compensation
1	413.41	3:1	1,240
2	422.04	3:1	1,266
3	415.83	3:1	1,248

Desert Tortoise

Worker education programs and well-defined operational procedures would be implemented to avoid the take of desert tortoises and minimize loss of their habitat during construction activities.

- All persons employed on the construction project would receive instruction regarding the desert tortoise before performing onsite work. Instruction would include the importance of the desert tortoise to the environment, recovery efforts for the desert tortoise, implications of the Endangered Species Act, and the importance of following all terms and conditions provided in the U.S. Fish and Wildlife Service Biological Opinion and Department of Fish and Game 2081 Incidental Take Permit. Employees would be notified that they are not authorized to handle or otherwise move desert tortoises encountered on the project site.

- Only biologists authorized by U.S. Fish and Wildlife Service and Department of Fish and Game would handle a desert tortoise. When handling a desert tortoise, the authorized biologist(s) would follow the guidelines established in the *"Guidelines for Handling Desert Tortoise During Construction Projects."*

- Permanent or temporary desert tortoise fencing would be installed around the perimeter of the project area before the start of onsite construction. Installation of the desert tortoise fencing would be monitored by a qualified biologist to ensure that tortoises are not killed or injured during this activity. The permanent fencing would be constructed together with the Caltrans right-of-way fence along the new Caltrans right-of-way. Temporary desert tortoise fencing would be installed in areas of construction that are beyond the perimeter of the Caltrans right-of-way or in areas where permanent right-of-way fencing would be constructed later due to construction staging. After installation, the tortoise fence would be regularly inspected to ensure its integrity. Cross-country travel for construction purposes outside areas of desert tortoise fencing would be prohibited.

- The entire project area would be surveyed for desert tortoises by the qualified biologist after installation of the tortoise fencing. Following the procedures and precautions outlined in the Desert Tortoise Council 1999 Guidelines, all desert tortoise pallets and burrows within the survey areas would be examined and excavated by hand, either by or under the direct supervision of an authorized biologist, and collapsed to prevent re-entry.

- Take of desert tortoises, through injury or death, found within the project area would be reduced through the removal of these animals to undisturbed areas beyond the construction site. When handling or translocating desert tortoises, the authorized biologist would follow the guidelines established in Desert Tortoise Council 1999 Guidelines. Desert tortoises would be relocated within their own territory, but outside of the construction area, where they may be familiar with alternate burrows. If no burrows were available, artificial burrows would be created following the Desert Tortoise Council's 1999 Guidelines.

- A qualified biologist(s) would be present during all initial brushing or grading activities within the project area. During project implementation, all workers would inform the qualified biologist if a desert tortoise were found within or near project areas. All work in the vicinity of the desert tortoise that could injure or kill the animal would stop and the desert tortoise would be observed until it is moved from harm's way by the authorized biologist.

- Workers would inspect for desert tortoises under vehicles and equipment before such equipment is moved. If a desert tortoise is present, the worker will wait for the desert tortoise to move from under the vehicle. The authorized biologist would also be contacted to remove the desert tortoise.

- All food-related trash items would be placed in a container that precludes entry by wildlife, such as common ravens and coyotes. Food-related trash shall be regularly removed from the construction site and disposed of at an approved refuse disposal site. Workers shall refrain from deliberate feeding of wildlife.

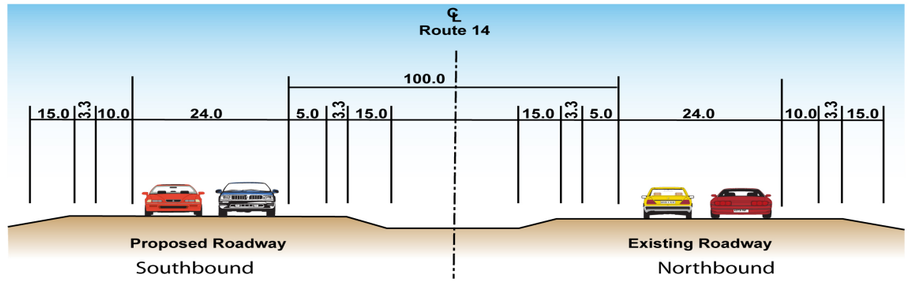
The qualified biologist(s) would maintain a record of all desert tortoises encountered during project activities in the project area.

Mohave Ground Squirrel

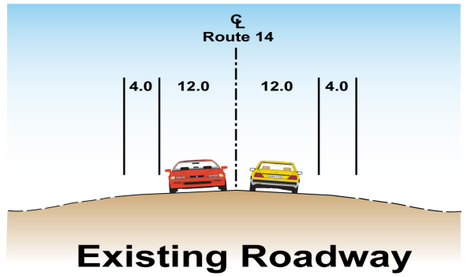
Worker education programs would be implemented to avoid the take of Mohave ground squirrels and minimize loss of habitat during construction activities.

If a Mohave ground squirrel were found within or near the project areas, a qualified biologist would be notified immediately. All work in the vicinity of the Mohave ground squirrel that could injure or kill the animal would cease until the Mohave ground squirrel is moved from harm's way by the authorized biologist or it moves from the construction area on its own accord. If the authorized biologist identifies a Mohave ground squirrel using burrows within the project area, the California

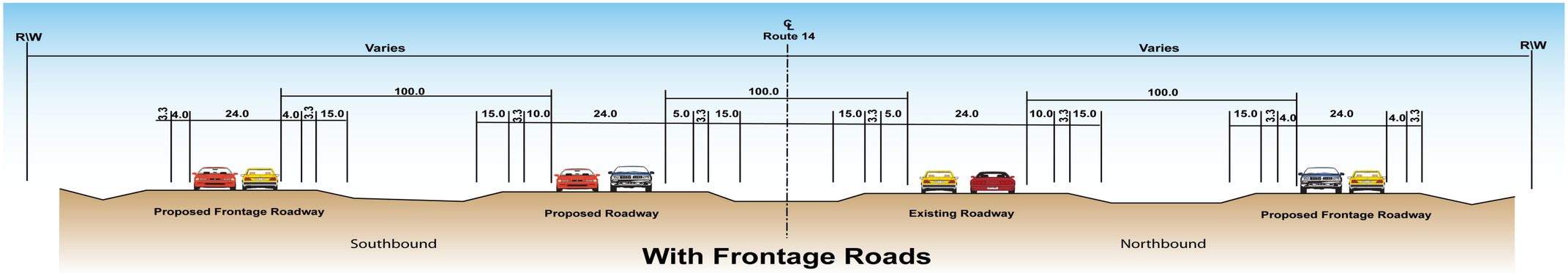
Department of Fish and Game would be consulted regarding the need for a trapping effort to relocate these animals to a safe site. The construction contractor would also comply with the requirements specified by the California Department of Fish and Game and the U.S. Fish and Wildlife Service.



Without Frontage Roads



Existing Roadway



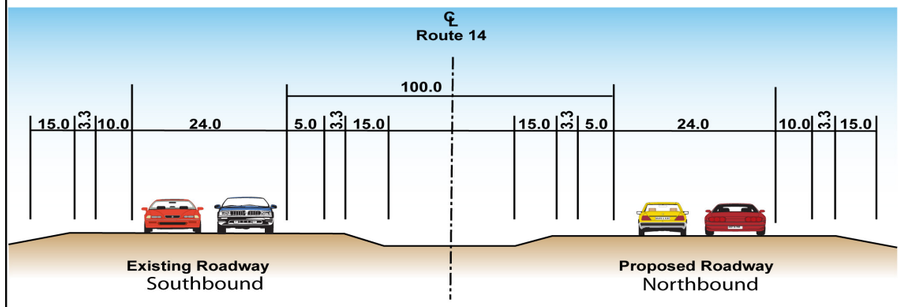
With Frontage Roads

Typical Cross-Sections

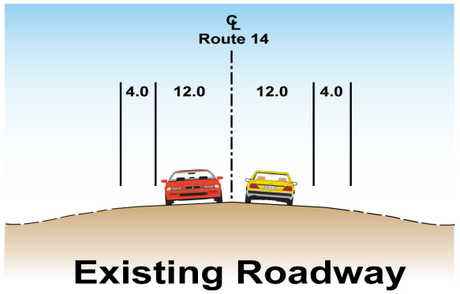
Divided Highway Alternative 1
PM 45.9 to PM 56.4

All Dimensions Are In English (Feet)
Unless Otherwise Shown

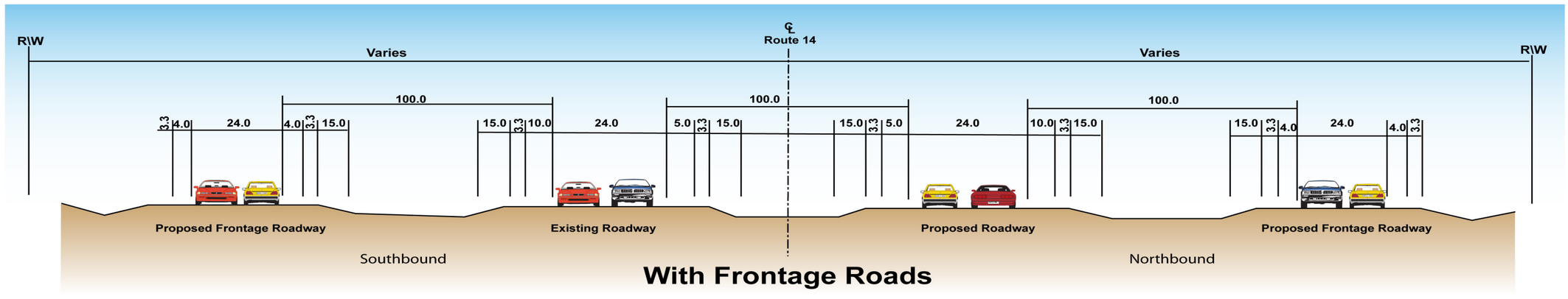
No Scale



Without Frontage Roads



Existing Roadway



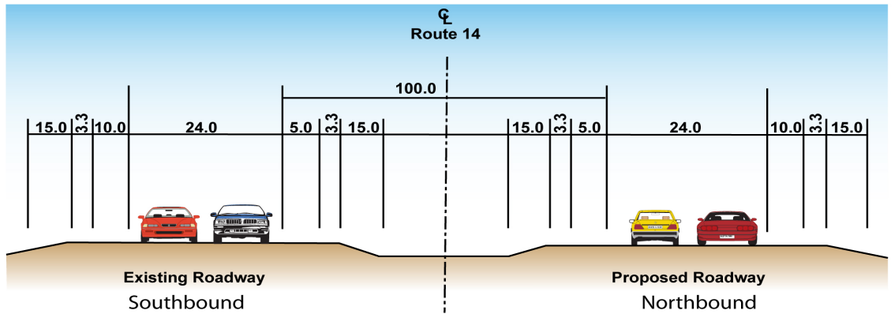
With Frontage Roads

Typical Cross-Sections

Divided Highway Alternative 1
PM 57.1 to PM 62.3

All Dimensions Are In English (Feet)
Unless Otherwise Shown

No Scale



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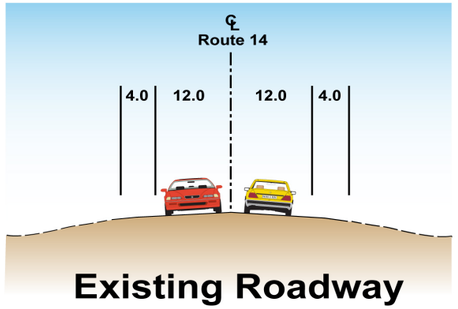
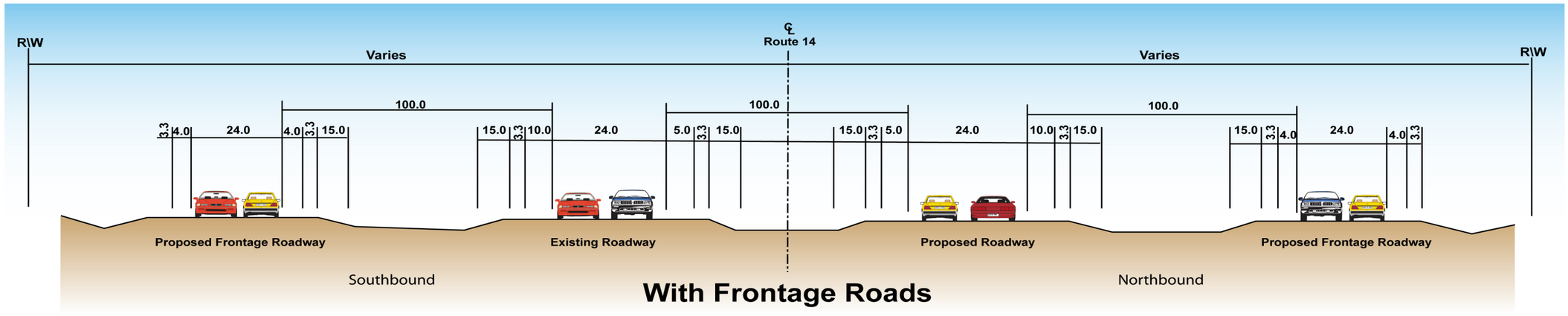


Existing Roadway



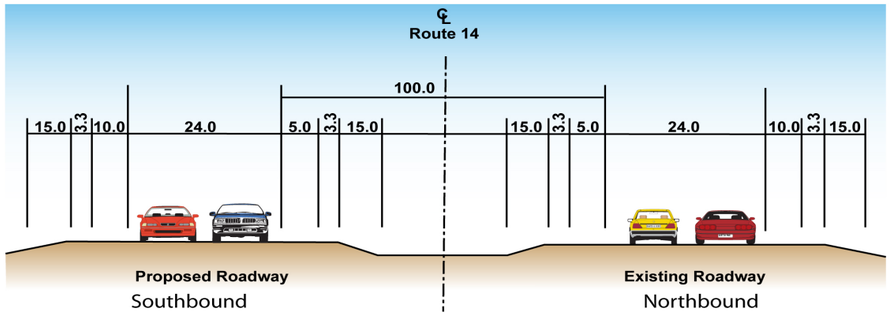
With Frontage Roads

Typical Cross-Sections

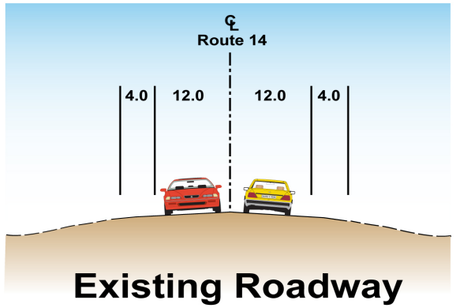
Divided Highway Alternative 2

All Dimensions Are In English (Feet)
Unless Otherwise Shown

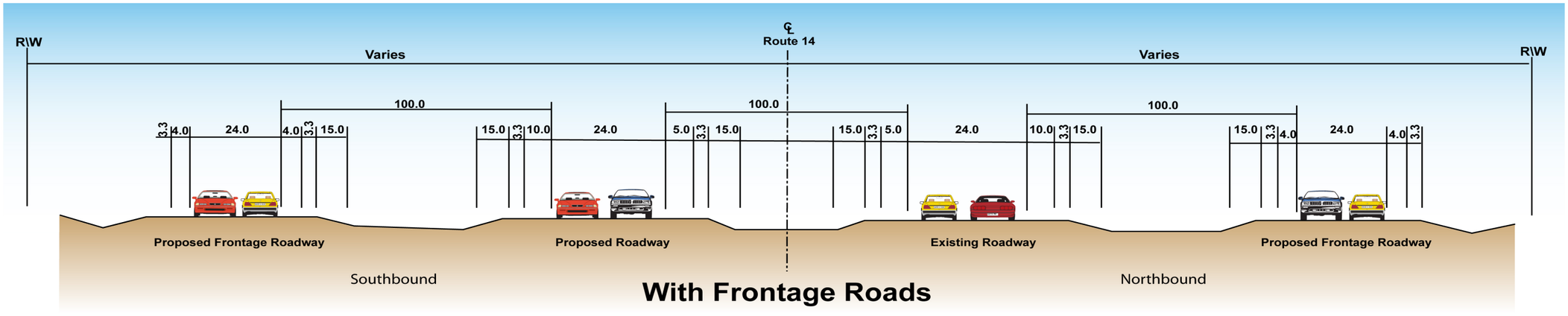
No Scale



Without Frontage Roads



Existing Roadway



With Frontage Roads

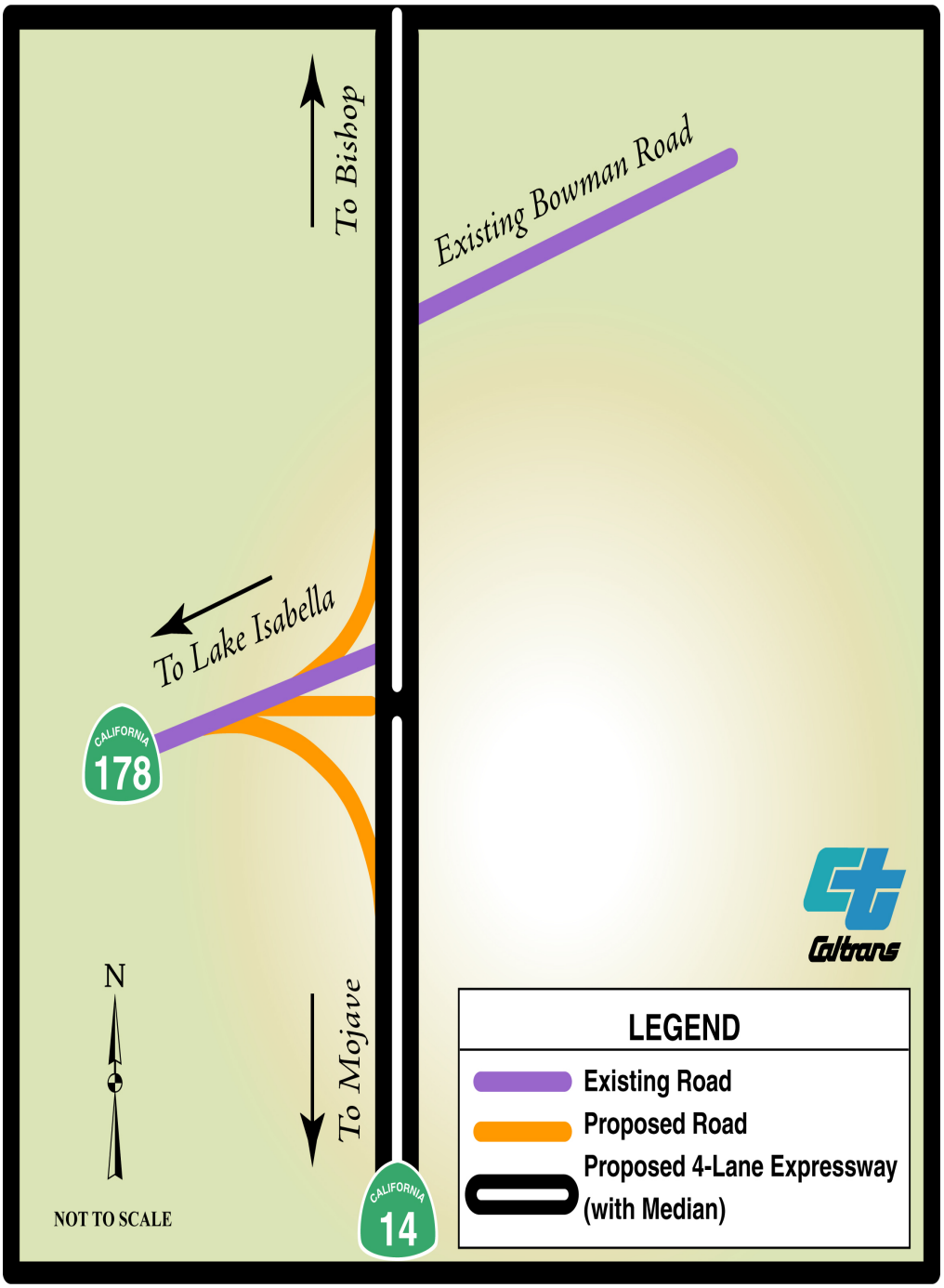
Typical Cross-Sections

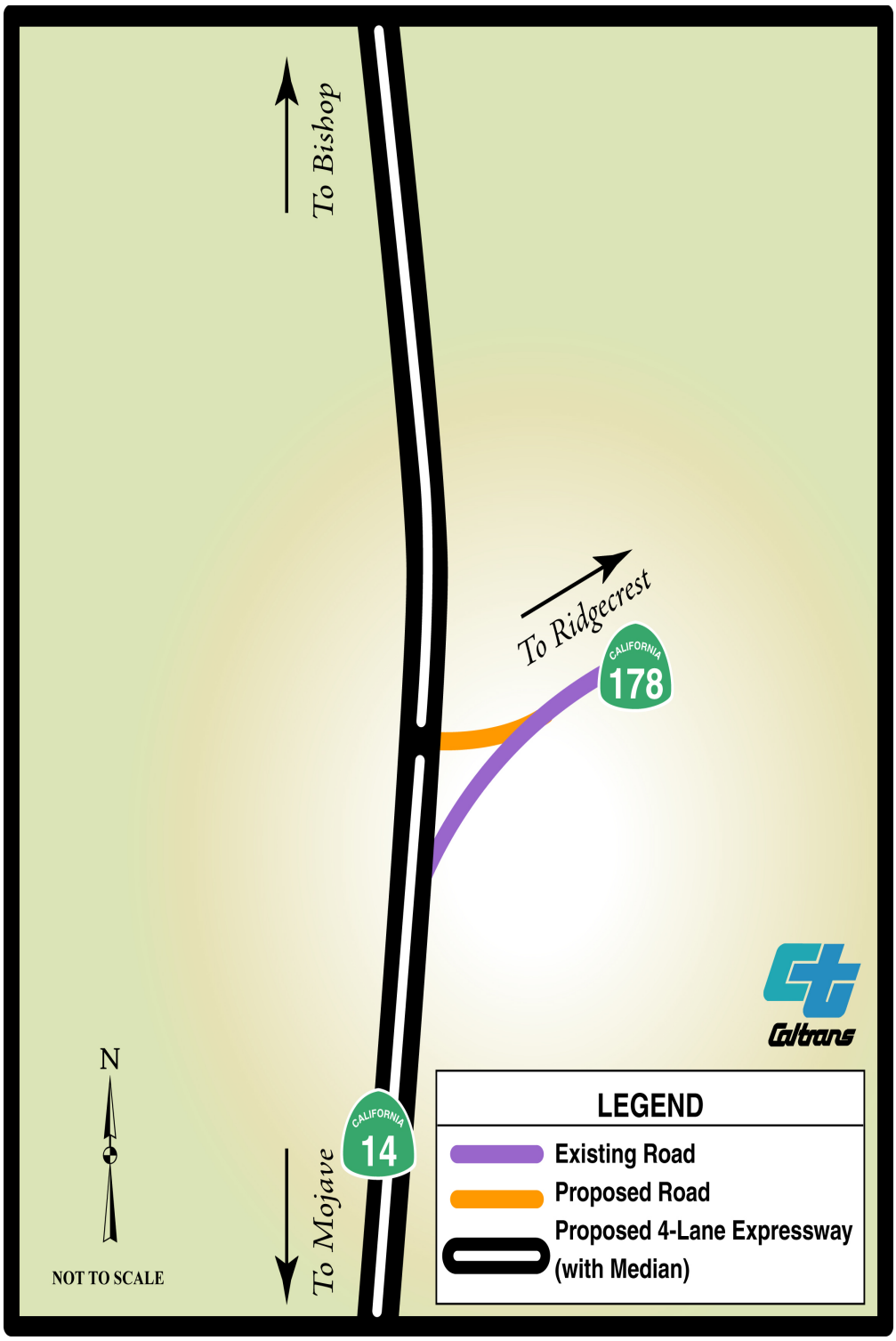
Divided Highway Alternative 3

All Dimensions Are In English (Feet)
Unless Otherwise Shown

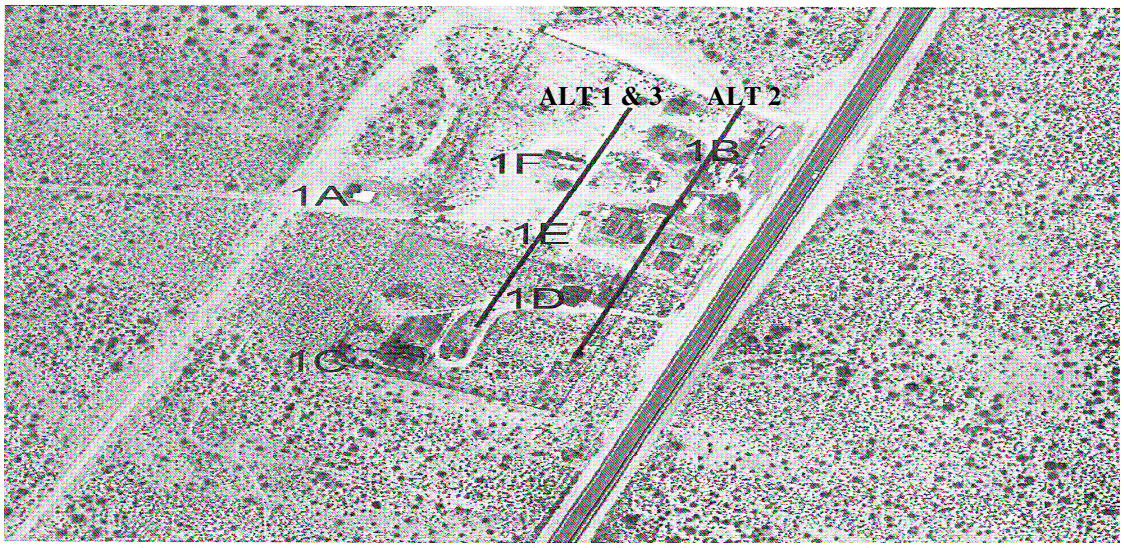
No Scale

Appendix J Proposed Intersection Improvements

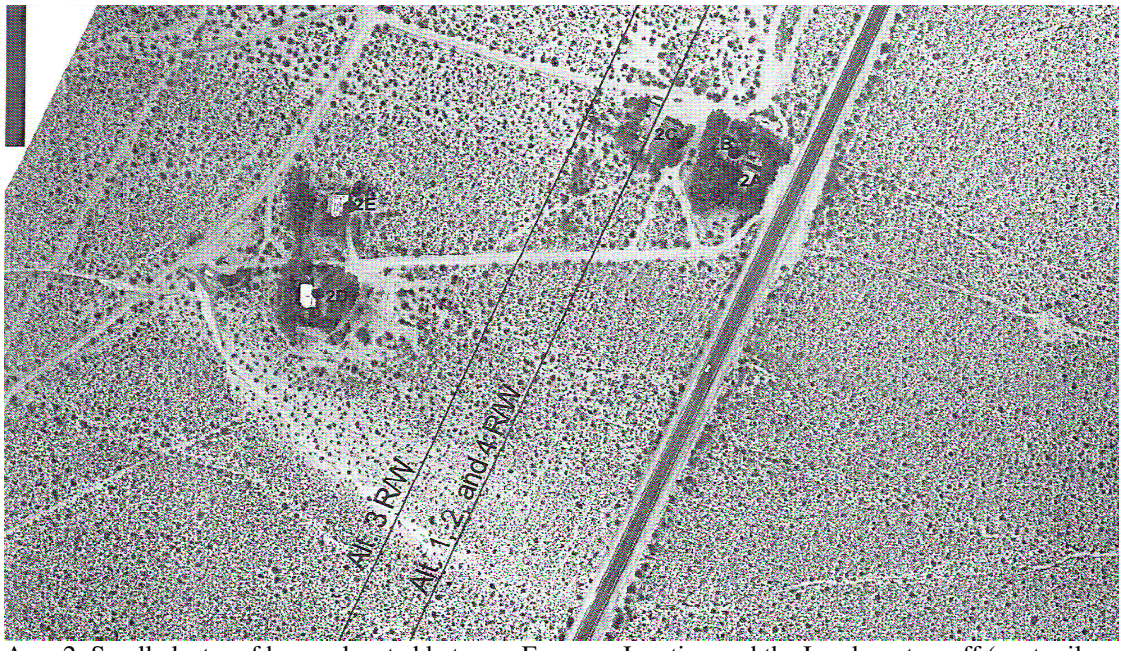



To Bishop
To Ridgecrest
CALIFORNIA
178
Caltrans
N
NOT TO SCALE
CALIFORNIA
14
To Mojave
LEGEND
Existing Road
Proposed Road
Proposed 4-Lane Expressway
(with Median)

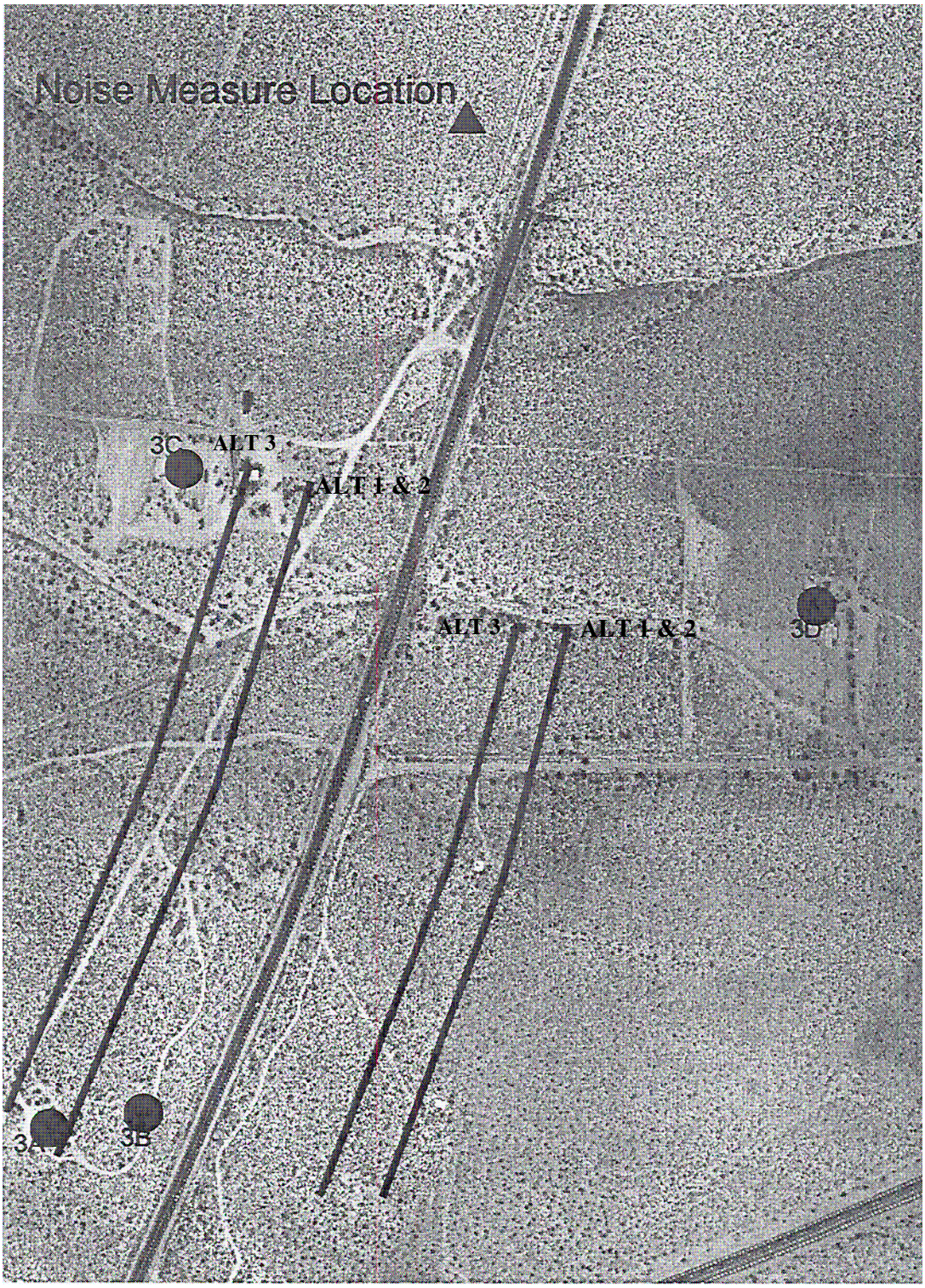
Appendix K Noise Receptor Maps



Area 1: Armistead parcel located between post miles 53.6 and 53.8. For Alternatives 1, 2, and 3, the only properties close enough to be affected by noise would be properties that would be acquired before construction (1B, 1D, and 1E). Therefore, no noise barriers (soundwalls) would be required.



Area 2: Small cluster of homes located between Freeman Junction and the Inyokern turnoff (post miles 59.1 and 59.2). For Alternatives 1, 2, and 3, the only properties close enough to be affected by noise would be properties that would be acquired before construction (2A, 2B, and 2C). Therefore, no noise barriers (soundwalls) would be required. (The Alternative 4 proposed right-of-way is displayed on this map, but has since been withdrawn from consideration. See Chapter 1, section 1.3.4.)



Area 3: Small cluster of homes located north of Inyokern turnoff and south of Indian Wells (between post miles 61.1 and 61.2). For Alternatives 1 and 2, the only property close enough to be affected by noise would be a property that would be acquired before construction (3B). For Alternative 3, the only property close enough to be affected by noise would be a property that would be acquired before construction (3A). Therefore, no noise barriers (soundwalls) would be required.

Appendix L Federal Highway Administration Conformity Determination

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CALIFORNIA DIVISION
650 Capitol Mall, Suite 4-100
Sacramento, CA. 95814
October 2, 2007

IN REPLY REFER TO
HDA-CA
File #: Ker-14-PM 45.9/62.3
SR 14 Freeman Gulch Widening Project
EA-06-457100
Document #: P57728

Mr. Malcolm Dougherty, District Director
California Department of Transportation
District 6
P. O. Box 12616
Fresno, CA 93778-2616

Attention: Agnes R. Jenkins:

Dear Mr. Dougherty:

SUBJECT: Conformity Determination for the SR 14 Freeman Gulch Widening Project (EA-06-457100)

On September 21, 2007, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a request for the project-level conformity determination for the SR 14 Freeman Gulch Widening Project (EA-06-457100) pursuant to 23 U.S.C. 327(a)(2)(B)(ii)(I). The Indian Wells Valley area, within the Kern County Air Pollution Control District, is in maintenance status under the Federal National Ambient Air Quality Standards for particulate matter (PM_{10}).

The project level conformity analysis submitted by Caltrans indicates that the project-level transportation conformity requirements of 40 CFR Part 93 have been met. The project is included in the Kern Council of Governments' (KCOG) currently conforming Destination 2030, 2007 Regional Transportation Plan (RTP) and the 2007 Regional Transportation Improvement Program (RTIP). The current conformity determinations for the RTP and RTIP were approved by FHWA and the Federal Transit Administration on June 29, 2007. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

As required by 40 CFR 93.116 and 93.123, the localized PM_{10} analysis is included in the documentation. The project was determined, through interagency consultation, not to be a project of air quality concern. The Environmental Protection Agency (EPA) has determined that projects not of air quality concern meet the provisions of the Clean Air Act Section 176(c)(1)(B) without an explicit hotspot analysis. The analyses demonstrate that the project will not create any new violations of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the SR 14 Freeman Gulch Widening Project (EA-06-457100) conforms to the SIP in accordance with 40 CFR Part 93.

If you have any questions pertaining to this conformity finding, please contact Joseph Vaughn, at (916) 498-5346.

Sincerely,

/s/ Joseph Vaughn

For
Gene K. Fong
Division Administrator

Appendix M Comments and Responses

This appendix contains the comments received during the public circulation and comment period from December 27, 2006 to January 25, 2007. A Caltrans response follows each comment presented.

Comment from State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Cynthia Bryant
Director

January 19, 2007

Michael Calvillo
Department of Transportation, District 6
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726-5428

Subject: 06-KER-14 KP 73.9/100.2 (PM 45.9/62.3) Freeman Gulch Four-Lane Project
SCH#: 2006121082

Dear Michael Calvillo:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on January 18, 2007, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Response to Comments from State Clearinghouse and Planning Unit

The State Clearinghouse letter acknowledges that Caltrans has complied with review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Comment from Native American Heritage Commission

STATE OF CALIFORNIA — Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

January 9, 2007

Mr. Michael Calvillo
CALIFORNIA DEPARTMENT OF TRANSPORTATION
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726-5428

Re: SCH#2006121082; CEQA Notice of Completion; Initial Study/Proposed Mitigated Negative Declaration & Environmental Assessment (EA) 06-KER-14 KP 73.9/100.2 (PM 45.9/62.3) Freeman Gulch Four-Lane (Widening) Project; Ridgecrest Area in Kern County; California Department of Transportation, California

Dear Mr. Calvillo:

Thank you for the opportunity to comment on the above-referenced document. The Native American Heritage Commission is the state's Trustee Agency for Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

1 √ Contact the appropriate California Historic Resources Information Center (CHRIS). The record search will determine:
- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

2 √ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

3 √ Contact the Native American Heritage Commission (NAHC) for:
  * A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have additional cultural resource information. Please provide this office with the following citation format to assist with the Sacred Lands File search request: USGS 7.5-minute quadrangle citation with name, township, range and section; .
- The NAHC advises the use of Native American Monitors to ensure proper identification and care given cultural resources that may be discovered. The NAHC recommends that contact be made with Native American Contacts on the attached list to get their input on potential project impact, particularly the contacts of the on the list.

4 √ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

5 √ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

6

7

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: List of Native American Contacts

Response to Comments Native American Heritage Commission

Thank you for your comments on the project.

Response to Comments #1-6: These recommendations were executed in the February 2006 *Historic Property Survey Report Freeman Gulch 4-Lane Project.* The letter of concurrence from the State Historic Preservation Officer (SHPO) on the said document was received March 24, 2006 and is Appendix C to this Environmental Document.

Response to Comment #7: This final recommendation, that avoidance measures be pursued, is addressed in the March 2007 *Finding of No Adverse Effect with Standard Conditions/Environmentally Sensitive Area (ESA) Action Plan Freeman Gulch 4-Lane Project.* The State Historic Preservation Officer has been notified of this finding and the Federal Highway Administration received no comments within the required 30-day comment period.

Comment from California Regional Water Quality Control Board Lahontan Region

California Regional Water Quality Control Board
Lahontan Region

Linda S. Adams
Secretary for Environmental Protection

Victorville Office
14440 Civic Drive, Suite 200, Victorville, California 92392
(760) 241-6583 • Fax (760) 241-7308
http://www.waterboards.ca.gov/lahontan

Arnold Schwarzenegger
Governor

Date: January 23, 2007

File: Environmental Doc Review
Kern County

To: Mr. Juergen Vespermann, Branch Chief
Southern Sierra Environmental Analysis Branch
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726

COMMENTS ON THE INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION/ENVIRONMENTAL ASSESSMENT FOR THE STATE ROUTE 14 PROJECT TO CONVERT THE EXISTING TWO-LANE CONVENTIONAL HIGHWAY INTO A FOUR-LANE, DIVIDED, CONTROLLED-ACCESS EXPRESSWAY ON STATE ROUTE 14 IN KERN COUNTY FROM 0.8 MILE NORTH OF REDROCK INYOKERN ROAD TO 2.2 MILES SOUTH OF THE JUNCTION WITH U.S. HIGHWAY 395, WITH TOTAL PROJECT TO ENCOMPASS APPROXIMATELY 1.5 MILES, AND INCLUDE A 100-FOOT MEDIAN, 5-FOOT INSIDE AND 10-FOOT OUTSIDE PAVED SHOULDERS, AND THE CONSTRUCTION OF A NEW FREEMAN GULCH BRIDGE (#50-14R), WIDENING OR REPLACING THE EXISTING FREEMAN GULCH BRIDGE (#50-14, WHICH WOULD BECOME #50-14L), AND UPGRADING INTERSECTIONS

Please refer to the items checked for staff comments on the above-referenced project:

[ ] The site plan for this project does not specifically identify features for the post-construction period that will control stormwater on-site or prevent pollutants from non-point sources from entering and degrading surface or ground waters. The foremost method of reducing impacts to watersheds from urban development is "Low Impact Development" (LID), the goals of which are maintaining a landscape functionally equivalent to predevelopment hydrologic conditions and minimal generation of nonpoint source pollutants. LID results in less surface runoff and potentially less impacts to receiving waters. Principles of LID include:

- Maintaining natural drainage paths and landscape features to slow and filter runoff and maximize groundwater recharge,
- Reducing the impervious cover created by development and the associated transportation network, and
- Managing runoff as close to the source as possible.

We understand that LID development practices that would maintain aquatic values could also reduce local infrastructure requirements and maintenance costs, and could benefit air quality, open space, and habitat. Planning tools to implement the above principles and manuals are available to provide specific guidance regarding LID.

We request you require these principles to be incorporated into the proposed project design. We request natural drainage patterns be maintained to the extent feasible.

[X] The project requires development of a Stormwater Pollution Prevention Plan and
[X] a NPDES General Construction Stormwater Permit and/or
[ ] a NPDES General Industrial Stormwater Permit

1

These permits are accessible on the State Board's Homepage (www.swrcb.ca.gov). Best Management Practices must be used to mitigate project impacts. The environmental document must describe the mitigation measures or Best Management Practices.

[ ] The project may require a Federal Clean Water Act Section 401 Water Quality Certification from the Regional Board. Application forms can be found at our web site (www.swrcb.ca.gov/rwqcb6).

[X] The proposal does not provide specific information on how impacts to surface Waters of the State and/or Waters of the U.S. will be mitigated. These surface waters include, but are not limited to, drainages, streams, washes, ponds, pools or wetlands. Waters of the State or Waters of the U.S. may be permanent or intermittent. The Environmental Document needs to quantify these impacts. Discuss purpose of project, need for surface water disturbance, and alternatives (avoidance, minimize disturbances and mitigation). Mitigation must be identified in the environmental document including timing of construction.

2

Mitigation must replace functions and values of wetlands lost. For more information see the Lahontan Region Basin Plan http://www.waterboards.ca.gov/lahontan/BPlan/BPlan_Index.htm.

[X] Other

3

- The route should avoid waters of the state and design spans for all drainage areas.

Please note that obtaining a permit and conducting monitoring does not constitute adequate mitigation. Development and implementation of acceptable mitigation is required.

Sincerely Judith Keir

Print Name Judith Keir
Title Environmental Scientist
Phone No. (760) 241-7366
E-Mail jkeir@waterboards.ca.gov

RC:\CEQA /JMK/SR 14 Freeman Gulch Four-Lane Project.doc

California Environmental Protection Agency

Recycled Paper

Response to Comments from Regional Water Quality Control Board Lahontan Region

Thank you for your comments on the project.

Response to comment #1: A Storm Water Pollution Prevention Plan would be prepared by the contractor and implemented during construction to the satisfaction of the resident engineer. Caltrans would outline the Best Management Practices to be included in the plan prior to the construction contract being awarded. Additionally, per Section 401 of the Clean Water Act, Caltrans would coordinate with the Regional Water Quality Control Board during the design phase to determine if a Section 401 Water Quality certification would be warranted for the project.

Response to comments #2 and #3: Mitigation per the Best Management Practices in Caltrans' statewide permit would be used. Section 2.2.2 of this Environmental Document discusses how potential impacts to surface Waters of the State would be mitigated. The purpose and need for this project is discussed in Chapter 1 of this Environmental Document. Caltrans would coordinate with the Regional Water Quality Control Board during the design and construction phases of the project. The schedule for future phases of the project, including construction, would be established accordingly when funding becomes available for those remaining phases.

Comment from Larry Van Kasper

On January 11, 2007, Mr. Van Kasper called Caltrans environmental planning to obtain more information about property relocation benefits.

Response to Comments from Larry Van Kasper

Thank you for your comments on the project. Caltrans environmental planning forwarded Mr. Van Kasper a copy of the Draft Environmental Document. Caltrans right-of-way staff contacted Mr. Van Kasper and answered his questions.

Comment from Art and Barbara Reeves

On December 27, 2006, Barbara Reeves telephoned Caltrans environmental planning to inquire about the potential impacts to her property.

On December 31, 2006, the Reeves Family sent the following letter to supplement their phone call.

Art and Barbara Reeves
32241 Agua Dulce Canyon Road
Agua Dulce, Ca 91390
661-259-3879
FAX 661-268-1924
December 31, 2006

Department of Transportation
2015 East Shields Avenue, Suite A-100
Fresno, CA 93726-5428

Attn: Michael Calvillo

Dear Michael:

Thank you for your phone call on Friday, December 29. We appreciate the information you provided and look forward to receiving the maps in the mail.

Enclosed is a copy of page 1 of our lease for the communications tower property to Pacific Bell Wireless (later Cingular and now T-Mobile) on 8-31-2000. Under "Term," you will see it indicates that when we signed the lease, it was for 5 option periods or 25 years. We have just passed the first option period of 5 years and have entered the second option period. We were given to understand by the liaison that the company does not enter into these agreements lightly, that the specific location where the tower was eventually placed was found to be an exceptionally "perfect" location for the tower, and that not only could we assume the tower would remain for 25 years, it could well remain long past that. This caused us to look upon the tower as our legacy to our heirs.

There is no need for renegotiating the lease at the end of each option period. We simply enter the next option period with a 10% automatic increase in income (see "Rent" on enclosed). And, indeed, that has just occurred. (We received $950.00 monthly until 12-01-06 when $1035.81, the new amount for the second optior period, was first automatically deposited in our account. This new figure does not quite represent 10% of $950.00, but we'll discuss that with T-Mobile.)

When we talked, you stated that no matter which alternative plan (1, 2, or 3) is chosen, 80-90% of our property would be needed by the state. Frankly, as I imagine you could tell on the phone, this comes as a shock, but we're prepared to deal with it. We haven't lived into our 7th and 8th decades, respectively, without learning to expect and deal with interruption of our plans and dreams.

But the communications tower is another story. 80-90% of our property could take the tower. Perhaps the maps we receive from you (held up, we imagine, because the Post Office will not reopen until Wednesday) will show that won't happen. But since you did not say that couldn't happen, we assume there is a distinct possibility.

We are retired and on a fixed income. When we were younger, we could take financial hits and land on our feet. But now, we have no way at this time of our lives to recoup financial losses. A significant portion of our monthly income is provided by the tower. We depend upon it. To lose the income from the tower would be devastating, and we don't use that word lightly.

We've both been exceptionally hard workers all our lives. We liked it that way. We've been provident, and never lived beyond our modest means. Then, the years caught up with us and we both experienced major health problems. As a result, we've found ourselves increasingly unable to work outside the home until, eventually, that ability unfortunately ceased altogether. Thus we came to depend upon the tower income.

At $950 (just increased by almost 10%) it represents approximately 1/4 of our monthly income, which is just adequate to get by and continue to live in our home in Agua Dulce. We live simply, do not have enough to travel (although we would love to), have difficulty finding the means to keep up maintenance on our house, but all-in-all, are getting by. Should one of us pass away, the tower income will then represent 1/3 of the monthly income for the surviving spouse. We are right on the cusp financially. Any loss would drive us over the edge. We do not exaggerate.

We feel confident that the State of California will leave us....I believe the word is.....whole.....if the tower does have to go. Your impact study referred to fairness. So I know the State thinks about fairness and would not intend to leave us in worse condition than we are now. One way or the other, of course, we hope that the State does not take the tower and our income from it.

As you suggested, we put in a call to Mr. Shaver. We haven't heard back from him yet, but we know the holiday has thrown off schedules. If we haven't heard from him by Wednesday, January 3, or the next day at the latest, we'll call you again. Perhaps by then we'll have received your maps and will know more.

Thank you for the opportunity to provide input.

Sincerely,

Art and Barbara Reeves

Art and Barbara Reeves

Response to Comments from Art and Barbara Reeves

Caltrans environmental planning returned Barbara Reeves' phone call on December 29, 2006. The Reeves family wanted to know how the project would impact the communications tower located on their property. Caltrans agreed to forward additional project information to the Reeves family regarding the project's area of impact relevant to their property. Caltrans environmental planning also stated the Reeves' comments would be forwarded to Caltrans design engineering staff.

The Reeves family received the additional project information mailed to them by Caltrans environmental planning staff. Caltrans design engineering staff were informed of the Reeves' comments regarding the communication tower on their property and agreed to contact the Reeves family.

Comment from Art and Barbara Reeves

Art and Barbara Reeves
32241 Agua Dulce Canyon Road
Agua Dulce, CA 91390
661-259-3879
FAX 661-268-1924
January 21, 2007

Department of Transportation
2015 East Shields Avenue, Suite A-100
Fresno, CA 93726-5428

Attn: Michael Calvillo

Dear Michael:

First, let me explain that we've sent this letter certified because time for public comments is short and we want to be certain you've received not only this letter in time but the letter dated December 31. If you didn't receive the December letter, please call us at the above number or email us at the above address.

A very hurried but nice Scott Shaver called us on Thursday, January 18. Since my husband wasn't home, I took a message about the tower and whether or not it would be "taken." Frankly, the message didn't clarify matters for us, so Art called Mr. Shaver later that day and left a message. We're waiting to hear from him again this coming week.

I'm sure the month for public comments can be at times extremely difficult for CalTrans planners who, I'm sure, welcome the end of that month, but for members of the public it can be too short.

We were at last able to make a trip out to the Ridgecrest Library to see the CalTrans materials there and to take a measurement from the center of 14 to the tower on our property.

We found the tower to be approximately 600 feet from the center of Highway 14. Looking at the maps available, we are still in limbo about what will happen to the tower.

By the way, access to the tower (if it should be spared) and to what is left of our property (in any circumstance) would be planned for by CalTrans, would it not? We'd appreciate hearing from you now if this is not the case. **1**

We also have not yet talked with the communications company owning the tower

2

since we don't really know any more now that's definite. My husband said he was sure CalTrans has communicated with T-Mobile. If this is not the case, if CalTrans has not communicated with T-Mobile, could you please let us know now. An email communication would be fine..

Let us make some comments regarding the Study we saw at the Ridgecrest Library.

3

1) Page 7 of the Study describes the Armistead compound as "abandoned." We dispute this. Although we're not occupying either of the two buildings on our 5 acres, we've tried to keep them boarded up for safety sake and for future use. The enclosed photo shows my husband shortly after surgery when we first bought the property. Our daughter had plans to retire to this property one day, and we had planned to contact the Historic Trust regarding the house. The materials used in the house were those typical of the time it was built. There was no building then in that area whose materials were evidently "suitable" for trust preservation, according to the report. As one of the Ridgecrest librarians asked us anxiously, "Are they even going to take the stone house?" So the stone construction is apparently not preservable, either. We would have liked the opportunity to discuss this with the Historic Trust.

4

2) In the section listing land owners in the area, we'd like to make one clarifying point. We own 5 acres of the Armistead property including one small building and the Armistead residence. The rest is owned by the Rooney's. The mini mart, most of the buildings, and what the report calls Robbers Roost are owned by the Rooney's, not by us.

This completes the comments we wanted to make, and we thank you for your patience and courtesy.

Sincerely,

Art and Barbara Reeves

Art and Barbara Reeves

Response to Comments from Art and Barbara Reeves

Thank you for your comments on the project.

Response to comment #1: As part of the project, Caltrans would construct frontage roads or provide access openings to private lands from the proposed four-lane expressway.

Response to comment #2: Caltrans corresponds with all utility companies impacted by the proposed project including T-Mobile. In a January 22, 2007 field visit, staff from Caltrans design engineering determined that none of the build alternatives would impact the communications tower located on the Reeves' property. On January 23, 2007, Caltrans design engineering staff contacted the Reeves family by telephone to inform them of this determination.

Response to comment #3: Caltrans identified the Armistead parcel during field surveys and subsequently performed a formal Phase II evaluation on the site. It was determined that this site does not meet the criteria for inclusion into the National Register of Historic Places. The State Historic Preservation Officer concurred with this determination in a letter dated March 24, 2006 (see Appendix C). Whether the two buildings were abandoned or occupied did not have a bearing on the determination of eligibility.

Response to comment #4: Comment noted. Thank you for the clarification.

Comment from Art and Barbara Reeves

BartReeves@aol.com
01/23/2007 11:01 AM

To: Michael_Calvillo@dot.ca.gov
cc:
Subject: Widening of Hwy. 14

Dear Michael,

Scott Shaver called this morning (Tuesday) and said the communications tower on our property will not be taken by the widening of 14. Obviously, that was good news to receive and occasioned a big sigh of relief on our part.

Yesterday afternoon, since the period for public comments was running short, we sent you a second letter by express mail with additional comments. This letter should reach you this afternoon. Obviously, Scott Shaver's call this morning puts the contents of our letter in a different light, making some of it not as critical to us. We still have a lingering question, however, about access to the tower and our property. We assume that has been thought about and is planned for; however, since assumptions are dangerous, we bring it up again and would appreciate hearing from you by email on the matter as you have time.

Thanks for your efforts and consideration.

Sincerely,
Art and Barbara Reeves

Response to Comments from Art and Barbara Reeves

Thank you for your comments on the project. As part of the project, Caltrans would construct frontage roads or provide access openings to private lands from the proposed four-lane expressway.

Comment from Richard J. Rooney

On December 27, 2006, the Rooney family telephoned Caltrans environmental planning to inquire about the potential impacts to their property.

The Rooney family also sent the following letter.

RICHARD J. ROONEY

101 Burma Road
P.O. Box 609
Kernville, California 93238
Ofc 760-417-0876 Fax 760-376-3181

1/13/07

Mr. Juergen Vespermann
Department of Transportation
2015 East Shields Avenue, Suite A-100
Fresno, CA 93726-5428

Re: Freeman Gulch Four-Lane Project

Dear Mr. Vespermann,

In response to our conversation, and to your December 27, 2006 letter (and enclosed extensive study booklet), we have concerns as property owners. This project has put our future plans in a state of limbo at this time due to the uncertainties of your future development. The following are only a few of our concerns: Our expansion of the existing convenience store and antique shop and museum, our organization of the weekly swap meet for the area, and our construction of the off-highway vehicle, park & campground. **1**

This project affects three families. In appendix K, Noise Receptor Map, page 123 and referring to area 1-A, (the existing, residential, mobil homes): Before notice was received, we had a permit to install an additional mobil home which was purchased and installed on this property. As we discussed, no matter where you place the highway, it will be too close to these residences, noise wise. And we hope you will address this problem by either also purchasing this existing property or by proper noise barriers (and we are not sure that a noise barrier will eliminate the noise problem for these homes). **2**

This project should address the questionable value of left over property because of being too close (or under) highline wires. Also, easy access on/off ramps for left over property (from both directions) needs to be considered. **3**

Our property acquired by this project should be treated as commercial as this has been in commercial usage since the 1930's. **4**

We would appreciate a timely answer to this project, as it stops all of our future plans for development of this area.

Sincerely,

Richard Rooney
Property Owner

Response to Comments from Richard J. Rooney

Thank you for your comments on the project. In response to the telephone conversation with the Rooney family on December 27, 2006, Caltrans environmental planning staff mailed them a copy of the Draft Environmental Document.

Caltrans environmental planning staff received a letter from the Rooney family dated January 13, 2007.

On February 7, 2007, Caltrans staff from environmental planning and design engineering met with the Rooney family at their State Route 14 property to discuss their comment letter. The Rooney family was interested in finding out how much of their property would be acquisitioned by each alternative. After introductions, Caltrans presented the project by explaining the project description, the purpose and need, and the build alternatives. Caltrans also displayed maps of the proposed build alternatives. In addition, Caltrans design engineering staff showed the Rooney family approximately where the new right-of-way boundary would be as they walked along the property.

Response #1: The Rooney family has plans for the renovation and expansion of buildings on their property. Based on the project's area of impact relative to their property and the anticipated years before right-of-way acquisition, they will still move forward with their plans. Caltrans also supplied the Rooney family with another copy of the Draft Environmental Document. The Rooney family was satisfied with the outcome of the meeting with Caltrans.

Response #2: The only properties close enough to be affected by noise from the proposed project are the properties that would be acquired before construction. Because noise impacts are not substantial (an increase of 12 dBA or more, or reaching 67 dBA), no noise barriers (soundwalls) would be required for the properties not acquired by the project.

Response #3: On any partial acquisition of a property, standard right-of-way procedure includes the evaluation of all remainder property, and if the remainder is an uneconomic remnant, the State of California will offer to purchase the entire parcel. As part of the project, Caltrans would construct frontage roads or provide access openings to private lands from the proposed four-lane expressway.

Response #4: According to Kern County records, this parcel is currently zoned as Exclusive Agriculture.

Comment from Vice Mayor Thomas Wiknich, City of Ridgecrest

Thomas Wiknich
<twiknich@ci.ridgecrest.ca.us>
01/19/2007 09:43 AM

To: michael_Calvillo@dot.ca.gov
cc: Chip Hollway Home <mhollo5177@aol.com>
Subject: Rt 14 widening project question

Sir,
I have a question concerning the Public Notice for the Rt. 14 widening project.
Where can I see, or get a hold of the plans for this project? My real concern is the intersection of Rt. 178 and Rt.14. I would like to make sure that Cal Trans is not going to make the same mistake they made at the 14/Cal City turnoff a few years ago. And then the total rip out of that project and replacement there of. Costing the tax payers a lot of money.
Further, I want to make sure that however the intersection is planned, it is recogninzed that the City of Ridgecrest wants to eventually have that part of 178 follow the original route right of way that would join it to what is now called Bowman Road, and have the road extended into Ridgecrest some day.
Years ago, Cal Trans abandonded the 178 freeway right of way to the County of Kern, and the City of Ridgecrest, with our intention of eventually bringing at least a road along that right of way into Ridgecrest.
Please note that I am in full support of this task. It is severely needed as soon as possible. I just want to make sure the intersection takes our concerns into consideration.
Thanks for your attention.
Sincerely,

Thomas Wiknich
Vice Mayor
City of Ridgecrest

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Response to Comments from Vice Mayor Thomas Wiknich, City of Ridgecrest

Caltrans was informed that Vice Mayor Wiknich had recently taken office and wanted to be informed about the Freeman Gulch Four-Lane project.

Response #1: On February 7, 2007, Caltrans staff from environmental planning and design engineering met with Vice Mayor Wiknich in Ridgecrest. After introductions, Caltrans presented the project by explaining the project description, the purpose and need, and the build alternatives. Caltrans also displayed maps of the proposed build alternatives. Caltrans provided Vice Mayor Wiknich with copies of the project maps and the Draft Environmental Document. Vice Mayor Wiknich was satisfied with the information given to him at the meeting.

Response #2: The project would upgrade the intersection by realigning the skewed angle at which State Route 178 East currently meets State Route 14. The existing angle would be improved to 90 degrees. The Freeman Gulch Four-Lane project would not prevent the future connection of State Route 178 East with Bowman Road or the extension of Bowman Road into the City of Ridgecrest.

Response #3: Thank you for your comments on the project. Thank you for your comments on the project. Caltrans has noted your interest in the future realignment of Bowman Road and would coordinate with the City of Ridgecrest during the design and construction phases of the project as they relate to the State Route 14/State Route 178 East intersection upgrade.

Comment from David A. Matthews

<dave.bet@verizon.net>
01/25/2007 11:54 PM

To juergen_vespermann@dot.ca.gov
cc samiam@iwvisp.com, davemaddavid@msn.com
Subject Request for public hearing

Dear Sir,
This is to let you know that I am requesting a public hearing on proposed changes to Highway 14 in Kern County near Ridgecrest and Inyokern. I understand the request is to be made via a U.S. Postal address, which I just found this evening. I also note the deadline is today, but I cannot get my request into the mail until the morning. Hence, I am letting you know my situation now, before the deadline.

Sincerely,

Dsvid A. Matthews
717 Kevin Court
Ridgecrest, CA 93555
760 375 4932

717 Keviin Court
Ridgecrest, CA 93555
January 26, 2007*

Caltrans Environmental Office,
2015 E. Shields, Suite 10o
Fresno, CA 93726-5428
Attention: Juergen Vespermann

Dear Sir'

I hereby request a public hearing on the proposed changes to State Highway 14 in Kern County near Ridgecrest. I respectfully request that the hearing be held in Ridgecrest. There are several facilities available which are handicapped accessible.

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My foremost concern is that insufficient attention has been given to historical sites within this project area. I expect I will have other concerns as I learn more about this project. Having witnessed the redistribution of the desert over the last several years in the project area near California City/ Mojave, I cannot see how a finding of no significant impact can be made on this project.

Respectfully submitted,

David A. Matthews

*Refer to e-mail sent to you on Jan. 25, '07

Response to Comments from David A. Matthews

Thank you for your comments on the project.

Response to comment #1: Field surveys for cultural resources were part of the environmental studies conducted for the proposed project. A Historic Property Survey Report detailed the findings and evaluations of any cultural sites discovered. The results of these studies are in Section 2.1.7 of this document.

On January 29, 2007, Caltrans environmental planning staff telephoned Mr. Matthews to respond to his e-mail and comment letter. Mr. Matthews informed Caltrans that he had not had the opportunity to read the Draft Environmental Document. After Caltrans explained the cultural resources studies that had been conducted, Caltrans offered to mail a copy of the Draft Environmental Document to Mr. Matthews and accept any further comments.

On February 7, 2007, Caltrans staff from environmental planning and design engineering met with Mr. Matthews at City Hall in Ridgecrest to discuss his comment letter. After introductions, Caltrans displayed maps of the proposed build alternatives. Caltrans presented the project by explaining the project description, the purpose and need, and the build alternatives. Mr. Matthews was satisfied with the information that Caltrans provided to him at the meeting and stated he was in favor of the project. At the conclusion of the meeting, Caltrans also granted several additional days for Mr. Matthews to submit any further comments. Caltrans received no additional comments.

Comment from Sophia Anne Merk

"Sam Merk"
<samiam@iwvisp.com>
01/26/2007 10:14 AM

To <juergen_vespermann@dot.ca.gov>
cc "Tammy and Amanda Johnson" <atjohns@ridgenet.net>, "Craig Peterson \(E-mail\)" <craigp@co.kern.ca.us>, <davemaddavid@msn.com>
Subject RE: Request for public hearing

Subject: Request for public hearing

Dear Sir,
This is to let you know that I am requesting a public hearing on proposed changes to Highway 14 in Kern County near Ridgecrest and Inyokern. I understand the request was to be made via a U.S. Postal address, which I just found late last night. I also note the deadline was yesterday.

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I don't believe your notification methods would stand up under CEQA and considering the emergency detour at California City (going on two years), I don't believe you have the public's safety in our best interest. In the future, at best, please let our County Supervisors know that you are doing this and run an article in the closest newspaper, not in the classifieds.

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Sincerely,

Sophia Anne Merk
2062 S Mikes Trail Road
Ridgecrest, CA 93555
760 375 3181

Response to Comments from Sophia Anne Merk

Thank you for your comments on the project.

Response to comment #1: A Public Notice of Availability and Opportunity for Public Hearing was displayed in the local Ridgecrest newspaper, the Daily Independent, on December 27, 2007 and January 16, 2007.

Response to comment #2: Prior to the beginning of the 30-day public comment period, Caltrans also distributed copies of the Public Notice and Draft Environmental Document to various officials at the City, County, and State level. The District 1 Kern County Supervisor was among those on the distribution list.

On February 7, 2007, Caltrans staff from environmental planning and design engineering met with Ms. Merk at City Hall in Ridgecrest to discuss her comment letter. After introductions, Caltrans displayed maps of the proposed build alternatives. Caltrans presented the project by explaining the project description, the purpose and need, and the build alternatives. Ms. Merk was satisfied with the information that Caltrans provided at the meeting. At the conclusion of the meeting, Caltrans granted several additional days for Ms. Merk to submit any further comments. Caltrans received no additional comments.

List of Technical Studies that are Bound Separately

Draft Relocation Impact Statement
Updated Relocation Impact Statement
Final Relocation Impact Statement
Air Quality Report
Noise Study Report
Water Quality Report
Natural Environment Study
Biological Assessment
Biological Opinion
Location Hydraulic Study
Historic Property Survey Report

- Archaeological Survey Report
- Phase II Archaeological Evaluation
- Historic Resources Evaluation Report
- Supplemental Historic Resources Evaluation Report

Finding of No Adverse Effect with Standard Conditions/ESA Action Plan
Hazardous Waste Initial Site Assessment
Hazardous Waste Initial Site Assessment Addendum
Visual Impact Assessment
Paleontological Identification Report
Paleontological Evaluation Report
Preliminary Paleontological Mitigation Plan